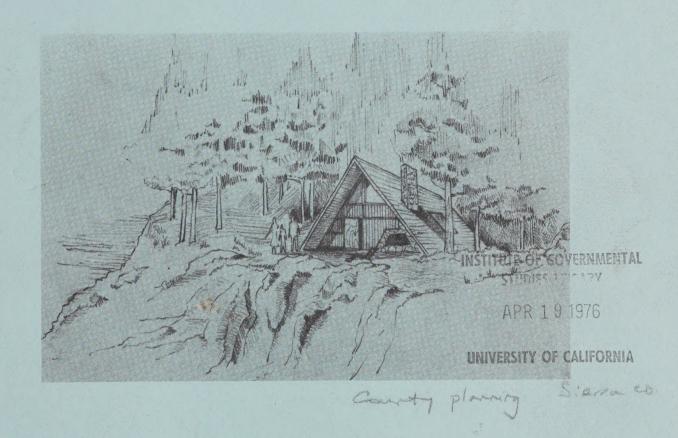
SIERRA COUNTY California



GENERAL PLAN

Sierra County Planning Commission

Harry Halatyn, AIP, ASLA

Planning Consultant
Landscape Architect



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GENERAL PLAN SIERRA COUNTY, CALIFORNIA

prepared for

PLANNING COMMISSION
Sierra County, California

HARRY HALATYN, AIP, ASLA

Planning Consultant

Landscape Architect

Sacramento, California

July, 1970

The preparation of this report was financed in part through an urban planning grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended, and through the auspices of the council on Intergovernmental Relations, State of California, and in part through a grant from Farmers Home Administration of the Department of Agriculture.

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Sierra County, California

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INTRODUCTION

The population growth of the nation and particularly that of the state in the future are bound to affect Sierra County. The growth will be reflected in physical, economic and social changes, requirements, and problems. Sierra County should have the advantage of observing growth problems affecting other areas of the state, and to obtain an idea of what it may face and solve in the future. By establishing planning and development policy in advance many of the problems can be effectively eliminated while solutions are still possible.

The future growth of California and Nevada will require increased water and other resources, and the need for additional open space and natural recreation areas. The natural resources of Sierra County will be called upon to supply many of these needs. In addition, land for uses other than recreation and natural resources must be provided, including that for residences, business, industry, transportation and public facilities and utilities.

Development and growth always bring with them problems. It means more traffic and more demands for better highways and transportation. There will be competition for land and problems of conflicting and incompatible land use; increased demands for land; and increased pressures for and against land use controls subdivision control and zoning. It means increased needs for public facilities and utilities. The problems can be met effectively by the preparation and adoption of a general plan and continuous advanced planning.

A plan is the product of a continuing process; a process of study, examination, analysis and decision-making leading to reasonable, logical and sound recommendations based on goals and desires of the community. Existing and anticipated technologies will affect the plan or plans; and plans must change and develop as these changes occur and as the county changes and develops. There will be suggestions and recommendations throughout the report; and they are reflected and summarized in the general plan map which includes the various elements of the plan.

The plan with its elements of land use, transportation, public facilities, recreation, and housing constitutes the general policy of the county to guide



individuals, private builders and investors, and the county and other public bodies in the constant and endless process involved in properly developing the county, while protecting the environment. The plan provides the basis for land use and development controls such as the subdivision ordinance, zoning ordinance, housing ordinance, construction and development standards, urban renewal, capital improvement programs, and the more precise plans for areas of the county that will have to be prepared before detailed zoning districts and controls are established.

It should be emphasized that the plan is the beginning, not the end, of the planning program for Sierra County. It is a result of what has been referred to many times throughout its preparation as the beginning of the planning process. There is a road ahead of more effort, more work, more planning. Probably the most valuable result of the plan and the planning process will be found in the fact that public bodies, private citizens, and business concerns will engage in the examination of the county, its needs, and the preparation of a formula designed to shape the future of the county. The people of Sierra County and their public officials will be thinking through the needs of the county. This thinking process, by the very fact that it occurs, helps to insure a better community.



I. BACKGROUND FOR PLANNING

Research of forces and events influencing past, present and future growth and development furnished a foundation for the preparation of the county general plan. Some research data on the history, population and economic growth and development of the county was available when the general plan program was begun. This research data was supplemented with additional research to develop a planning framework to guide the general plan preparation. All the research data, its analysis and projection, led to the preparation of planning goals and objectives, and planning policies and principles.

A. Planning Goals and Objectives

Sierra County is a prime watershed, timber producing, natural resource and recreation area. These characteristics are the basic factors in determining the goals and objectives to set the stage for planning future growth. Local objectives defining the wishes of the people of Sierra County regarding what they wish the county to become must be controlled by the prime purpose of the county as a watershed area for the state and the nation. The general plan itself and the land uses it projects must be related to the enhancement, conservation, and wise use of the natural features of the county.

Facts, trends and projections, however, cannot entirely answer the question of what the people of Sierra County want. Basic goals and objectives are necessary to describe the kind of county the people want; and the kind it should be in the future. Planning goals and objectives for other areas in the state such as Lake Tahoe or the metropolitan centers would very because of the different functions and needs of these areas. The general long range goals and objectives of the county are to conserve and develop its great natural resources, and promote the public health, safety, peace, comfort, convenience and general welfare for the present and future citizens and visitors of the county.

In planning for these goals and objectives Sierra County should be considered as:



- A unique area possessing great water, timber and mineral resources providing the state and nation opportunities for resources and recreation development.
- A great outdoor recreation and open space area with scenic beauty, abundant fish and game, excellent climate providing diversified opportunities for not only local residents but for the state and nation as well.
- A desirable place to live and work in, and to visit, with a healthful, smog-free atmosphere, adequate transportation and public facilities and utilities, without the problems of overcrowding and with excellent opportunities for constructive use of leisure time.

These basic goals and objectives are of foremost importance. Plans and policies may change over the course of years but the goals and objectives should grow stronger as they are tested by time and change.

B. Planning Policies and Principles

Certain planning principles are derived as more specific guides for policy decisions from the goals and objectives. These policy guides look toward the best and most suitable use of all land in Sierra County. Some of these principles are presently being followed such as the conservation of natural resources. This basic to the existence of the county and to a certain extent to the existence of California and the nation. All land in Sierra County is useable for one or more purposes. The greatest single purpose is the production and retention of water. Continued water production requires that the best conservation measures be applied to maintain the balance which Nature demands for such production.

Planning for all land use, transportation, housing, public facilities and utilities and recreation must be clearly related to the principal of natural resource conservation. In the final analysis the test of whether land development can be judged good or bad is determined by its effect on natural resources. The use of land, intensity of land use and construction must not be permitted to violate sound conservation and natural land use principles.



All resource programs for development must be based on conservation practices including but not limited to:

- Wise timber management for sustained yield of water and forest products.
- Prevention of water pollution for continued use of water resources for recreation, water storage, consumption, stream flow maintenance, and the enhancement of fish and wildlife.
- Prevention of air pollution for continuation of the excellent climatic conditions required for a healthful environment for people, wildlife and vegetation.
- Prevention of high impact development or intense development which will damage the natural conditions and create burdens to the maintenance of a reasonable fiscal policy by the county.

The development of the county, whether in the presently developed or under-developed areas, should be considered in terms of well designed cohesive clusters rather than sprawling growths. Development should be directed toward those areas already developed where there is or can be provided the necessary public facilities and utilities which would be required. All social and economic activity in Sierra County depends directly on the wise management and conservation of its natural resources. Future industrial, commercial, recreational and residential development must be based on the long-range use of these resources. Future growth requires continued application of the best resource management and conservation practices.

Multi-purpose use of some areas is desirable, but multipurpose use should be permitted only when proposed uses are compatible with resource management practices. Development standards and regulatory controls should require strict adherence to sound, realistic development practices to insure a strong and permanent foundation for long and continued wise development of land in Sierra County.



C. Research and Analysis

A review of the past growth, and an analysis of such growth along with observable trends of growth can help in the preparation of projections or extrapolations for future planning. However, it must be made clear that even the most fastidious, sophisticated and detailed research may produce, in many cases, information of little value or of restricted value and usefulness. This has become more apparent with the passage of time when previously developed research and projections are examined and compared with present conditions. Too many discrepencies and differences between projections and observed conditions for the times the projections were called for have been made apparent. Which only proves that we deal, in many cases, with imperfect methods. Constant and continuing refinements of trends and projections must be made every five years or so with careful observation of changing social and economic conditions.

Sierra County has been previously examined by various state agencies in connection with different projects, usually on a regional basis or as part of a natural watershed. Fortunately, the consultant had been a part of the teams who made some of these studies, and gained the added insight in the social and economic conditions, trends and projections pertinent to Sierra County. In addition to these studies the consultant was given two reports published by Sierra County containing historical data of some use in the preparation of the general plan. These reports are:

"Provisional Overall Economic Development Program" prepared by the Sierra County Redevelopment Area Citizens' Committee. Undated, but estimated to have been published in 1962.

The so-called "Sierra County General Plan - July, 1966". This report was prepared by Sierra County citizens organized within eight working committees.

1. History

It is not known who the first white men were to explore the wilderness of Sierra County, but the lure of gold attracted early prospectors. Under the



leadership of Major William Downie an expedition up the Yuba River in 1849 established a settlement (present Downieville) and discovered gold. The gold rush was on, and thousands made their way up river into the rugged interior. Fabulous wealth was extracted from the placer diggings which in turn gave way to quartz mining. Before the turn of the century there were over 200 miles of ditches conveying water to the mines and stamp mills.

Sierra Valley is believed to have been discovered in 1850 by a party who were searching for Gold Lake and a bonanza. However, the pioneer black, James Beckwourth, was in the valley in 1851 (and possibly earlier). The pass in Plumas County east of Portola is named after him.

Sierra County was part of Yuba County until created by the Legislature in 1852 (on April 16), and becoming the 32nd county in the state.

In 1861 the Reverand Adam Doom built and opened a hotel in the town that became known as Loyalton in 1863. Loyalton became an incorporated city on September 7, 1901. The town of Randolph which is now a part of Sierraville, was an important hub for four stage lines which ran to Truckee, Sierra City, Junction and Eureka Mills, and to Loyalton and Summit.

The road from Downieville, Goodyear Bar, Mountain House and to Camptonville was opened in 1859, on July 4th. In 1870, Sierra County voted to bond itself for \$20,000 to build the road from Downieville to Sierraville.

2. Climate

Ample rainfall throughout most of the county and runoff from the heavy winter snowfall keep streams cascading the year round, swelling the river system. Almost fifty years of record show that rain and snowfall averaged around 60 inches a year at Downieville and 22 inches at Sierraville. Seasonal precipitation ranges from about 10 inches in Sierra Valley to in excess of 70 inches on the west slope of the Sierra Nevada - much of it in the form of snow which is quite heavy at the higher elevations.



Generally, the summers throughout the county are cool, while the winters are cold to severe. The growing season for frost tolerant crops extends from early May to late September. The July temperature readings average 63 degrees in Sierraville, 68 degrees in Downieville. In January temperature readings average 26 degrees in Sierraville and 38 degrees in Downieville.

The growing season of Sierra Valley is relatively short. Killing frosts may occur during any month of the year. The average annual frost free (32°F) period is about thirty days. For semi-hardy crops the growing season (above 28°F) is about ninety days. Extremes in temperature range from above 100°F to 20 or 30°F below zero. The average annual temperature is 42 to 50°F. In January the minimum temperature averages 12 to 15°F, and the maximum averages in the lower forties. Maximum temperatures in July are in the middle eighties, with minimums averaging about 40°F. Moderately strong to strong winds occur sporadically in the spring and fall; and these windy periods are seldom longer than a few days. Sunshine is abundant in the summer with little decrease in the other seasons of the year. The annual average number of hours of sunshine is 3,200 or about thirty-seven per cent.

3. Physical Features & Geology

Sierra County lies in the Sierra Nevada and is divided east from west by this northerly trending mountain range. Its area of 958 square miles is entirely mountainous except for the part of Sierra Valley within its borders which it shares with Plumas County. It is an area of rugged mountains and deep canyons. The terrain rises from approximately 1,800 feet on the west to over 8,600 feet in the east. Sierra Valley in the northeast lies at an elevation of approximately 5,000 feet.





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The general geology of Sierra County consists of intensely folded sedimentary rocks of various types, intruded by basis and acidic igneous rocks, all of which are greatly eroded by weathering and the carving forces of an ancient river system. These old channels interlaced the area and deposited most of the heavy residual mineral (mainly gold) in their gravel beds prior to a series of volcanic flows which cut them up before burying them under volcanic breccia. The breccia (predominately andesitic) was in turn mostly eroded by the present drainage system which was created by a general upheaval along the backbone of the Sierra Nevada. This caused the canyon cutting forces of the present drainage to denude much of the bedrock formation, again exposing mineral outcrops and leaving many segments of the volcanic cover between deep canyons where intact sections of the ancient stream channels remain buried.

The major mineralized areas lie in the higher elevations, blanketed with heavy snows for many months of the year. The large Melones fault runs north and



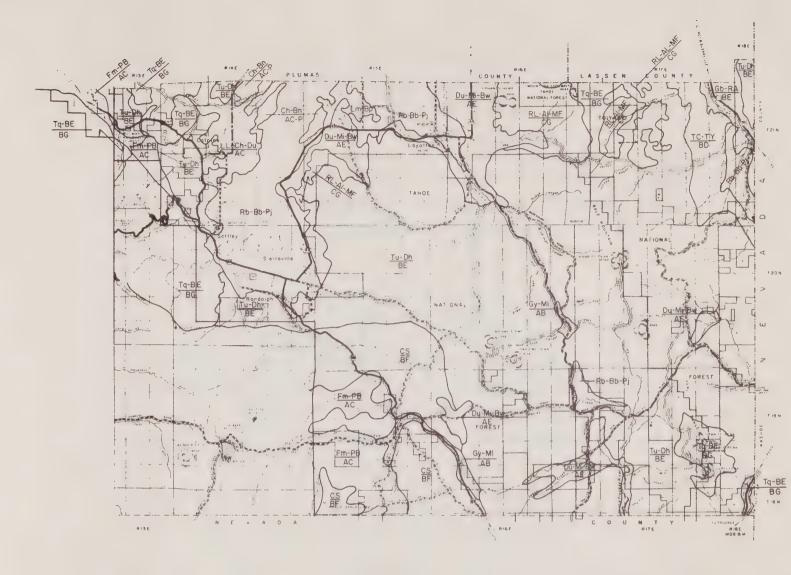
south through the county in the vicinity of Downieville. However, it appears that no major amount of bedrock movement has occurred in the gravel channels mined in the vicinity of the fault. Lost stream beds and pay streaks have resulted mainly from cutting and redeposition by the intervolcanic and present flows. Besides the auriferous gravel deposits, the bedrock of the county hosts pre-eminently rich but sporadic mineralized zones as well as some evenly distributed mineralization in the ore shoots of the numerous quartz veins that lie in the rock formations.

4. Soils

In addition to topographic features the type of soil of an area influence its development. Flat, well drained, productive farm land is often so valuable for agricultural purposes and for other development that it is under constant competitive pressure. Other steeper areas requires more costly development including special storm drainage and erosion control devices. Where soils have low supporting capacity, costly foundations must be constructed. Rocky areas require higher excavation costs. Septic tank leach fields for sewage effluent disposal should not be installed where soils are of low permeability, poorly drained and shallow to rock. These examples serve to illustrate the importance of giving sufficient consideration to soil and terrain characteristics in projecting future land use and population densities.

A general soil map has been prepared by the U.S. Soil Conservation Service (Sierra Valley area) and it is shown on the following page. This map is only suitable for the most general planning purposes, and should not be used for detailed or operational planning. This map is a part of the Soil Conservation Service's report which was published in April, 1967. There are thirteen different mapping units on the soil map and they are briefly described on the map, organized under six major groups based on soil characteristics and qualities, including slope. This map has been compiled from more detailed soil maps supplemented by field observations, geology maps and a soon to be published (in about three years or so) detailed high intensity soil survey of the Sierra Valley Area.





LEGEND

Group I - Areas dominated by very deep, nearly level to gently sloping, poorly drained soils

Rb-Bb-Pj Ramelii-Baldock-Pasquetti association

Greenhorn-Massack association, O to 5 percent slopes

Group 2 - Areas dominated by very deep, nearly level to moderately sloping, moderately well to somewhat poorly drained soils

Calpine-Beckwourth association, O to 9 percent slopes, wind eroded

Group 3 - Areas dominated by very deep, nearly level to moderately sloping, well to somewhat

Fm-PB Forgay-Plumas association, 0 to 9 percent slopes

Group 4 - Areas dominated by moderately deep to very deep, gently sloping to steep, well drained soils

Tu-Dh Tournquist-Delleker association, 2 to 30 percent slopes

CS BF Cohasset association, 2 to 50 percent slopes

Gb-RA Galeppi-Reno association. 2 to 30 percent slopes

Group 5 - Areas dominated by shallow to very deep, nearly level to moderately steep, moderately well to well drained soils

Du-Mi-Bw Dotta-Martineck-Bieber association, 0 to 30 percent slopes

LM-Bp Loyalton-Bellovista association

LL-Ch-Du Lovejay-Calpine-Datta association, 0 to 9 percent slopes

Group 6 - Areas dominated by very shallow to deep, gently sloping to very steep, well to excessively drained soils

Tq-BE BG

Toiyabe-Bonta association, racky, 2 to 75 percent slopes

Trasi-Terrace Escarpment association, 2 to 15 percent slopes

Rock land-Aldax-Millich association, 5 to 75 percent slopes

Soil names are based on the best information currently available



Base prepared Mor. 1966 by 505 Cartographic Unit, Partland, Oregon from State Division of Highways 1961

County Road System map of Sierra County, California.

GENERAL SOIL MAP SIERRA COUNTY

CALIFORNIA

Prepared by U.S. Department of Agriculture, Soil Conservation Service
Co-operating with Soil Conservation Districts in Sierra County

APRIL 1967 SCALE IN MILES

Sierra County Planning Commission

HARRY HALATYN AIP, ASLA

City and Regional Planning Landscape Architecture

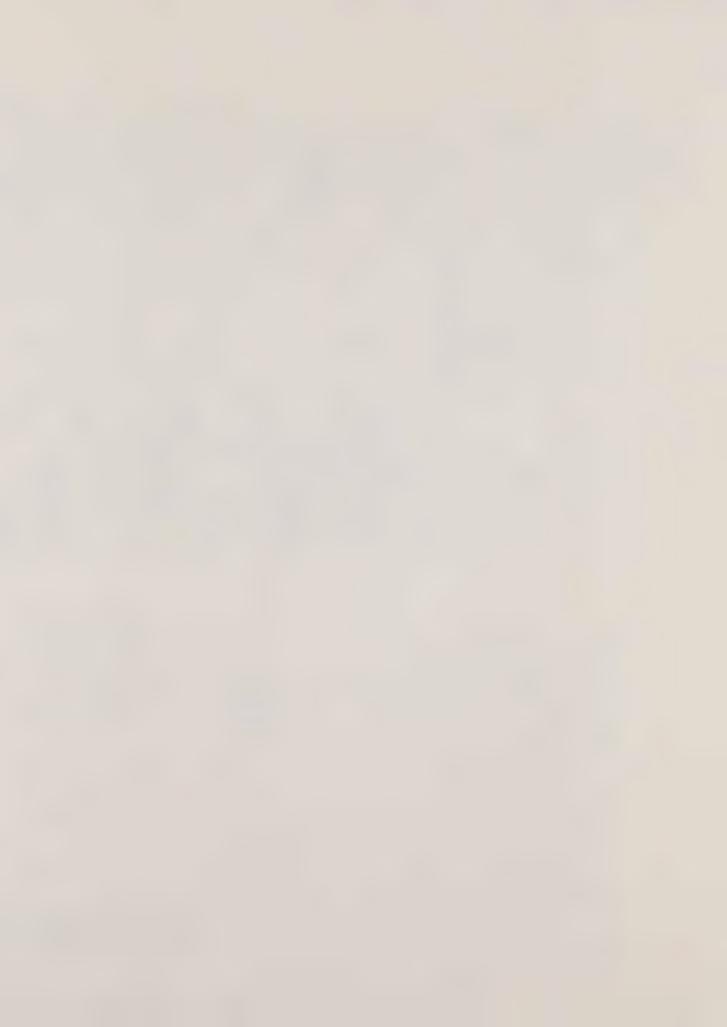
334 Forum Building Sacramento, California 95814

June, 1970

U.S. DEPARTMENT OF AGRICULTURE, SDIL CONSERVATION SERVICE

The preparation of this map was financed in part through an urban planning grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended, and in part through a grant from Farmers Home Administration of the Department of Agriculture, and through the auspices of the California Council on Intergovernmental Relations

NOTE: This map is intended for general planning. Each delineation may contain soils having ratings different from those shown on the map. Use detailed soil maps for operational planning



The general patterns of soils that occur within each area is such that each area is made up of one or more extensive soils similar in general soil characteristics. Each area includes minor areas of soil that may or may not be like the dominant soils within the area. Each area on the map is called a soil association and is named for the major soil series it contains. Soil associations differ from one another by having contrasting soil properties or differing in potentialities. For example, one association may be dominated by sandy soils, while another would be mostly clay soils.

5. Water Resources

Sierra County is blessed with abundant water resources which are sometimes taken too much for granted by the lower elevation and more densely populated areas of the state which are served by this precious resource. The county contains five major watersheds and these are shown on the fold-out map which follows. A sixth watershed is shown on the map because of its relativity to the county - the South Yuba River Watershed (No. 4) or hydrographic unit. The estimated areas of the five watersheds are:

- 1. Feather River 171,269 acres 267.61 sq. mi.
- 2. Long Valley Creek 32,000 acres 50.00 sq. mi.
- 3. Truckee River 100,451 acres 156.95 sq. mi.
- 5. Middle Yuba River 69,000 acres 107.81 sq. mi.
- 6. North Yuba River 240,400 acres 375.63 sq. mi.

 Total County Area 613,120 acres 958.00 sq. mi.

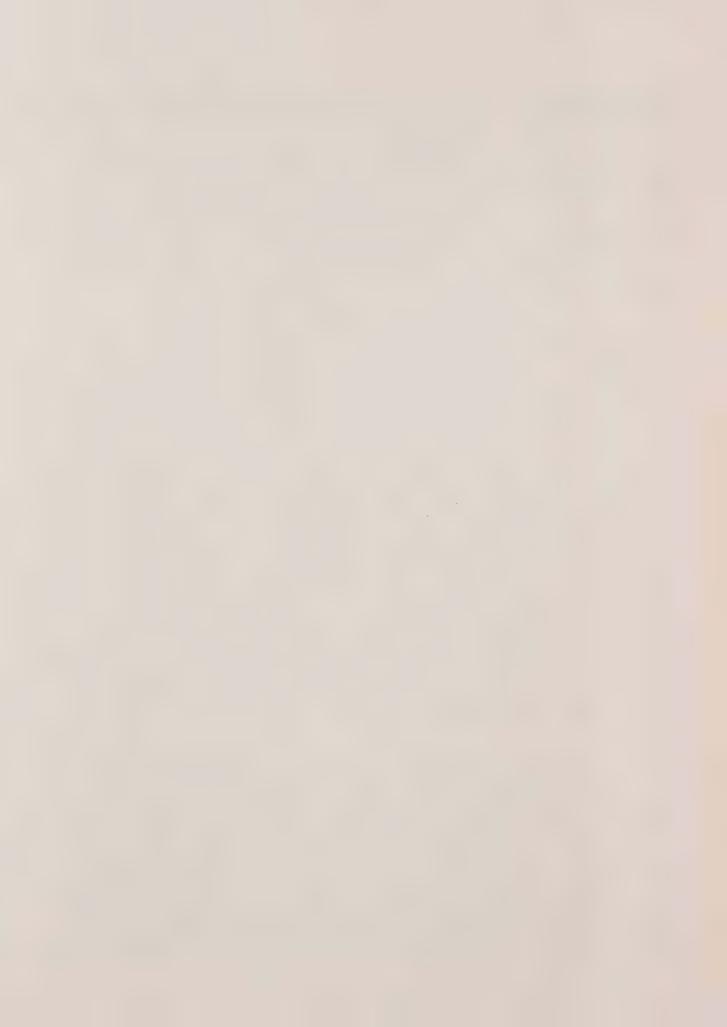
In the California Department of Water Resources Bulletin No. 58, "Northeastern Counties Investigation", available data as to water runoff is shown which gives some idea of the water yield. However, these data do not coincide with county boundaries and include larger areas.

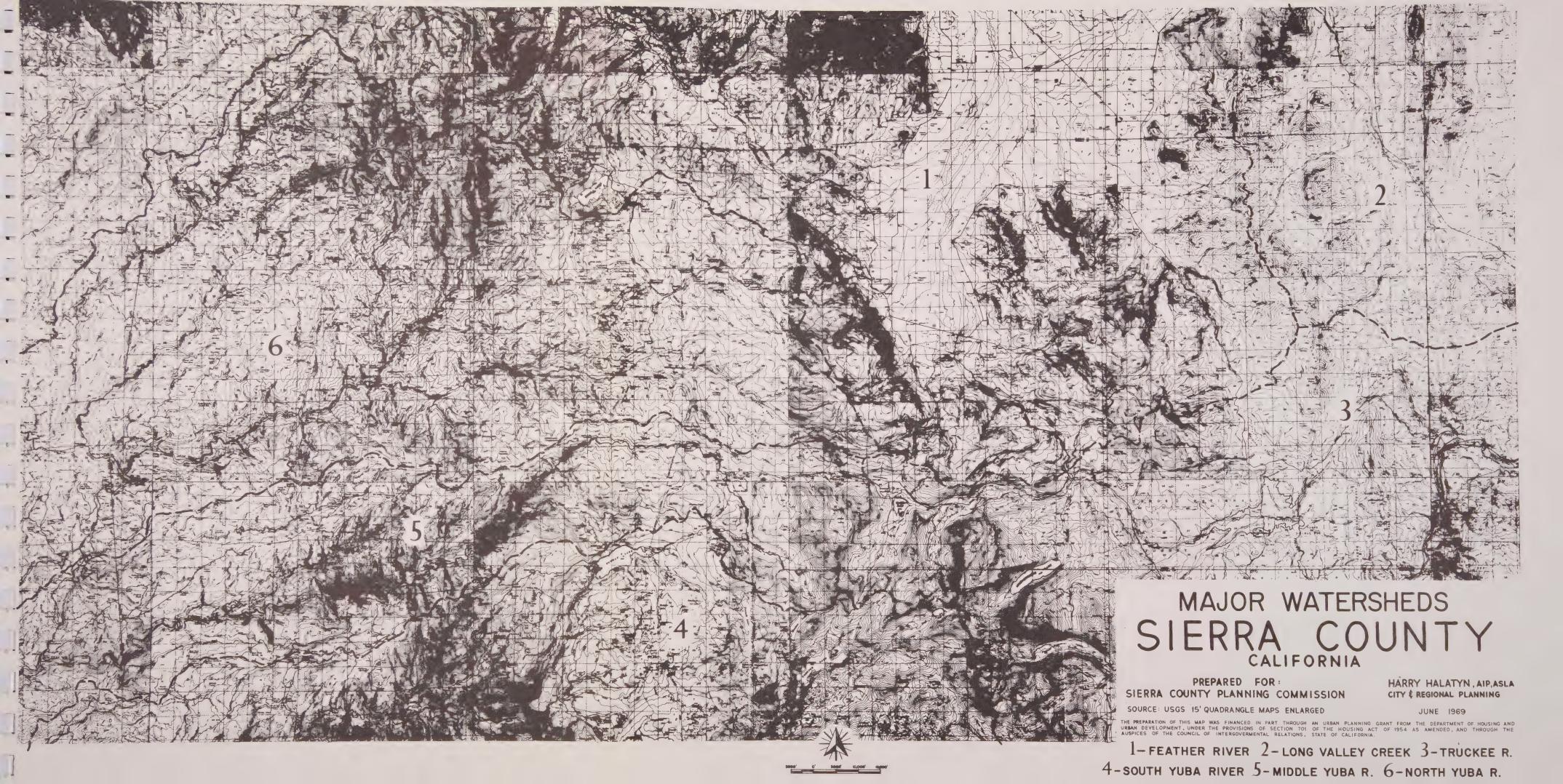


Hydrographic Unit or Stream & Station	Drainage Area	Seasonal Natura 34 Yr. Average		cre-feet) Minimum
Middle Fork Feather R. at Bidwell Bar	3,611 sq. mi.	1,403.500	3,101,300	335,400
Middle Yuba River above Oregon Ck.	170 sq. mi.	291,600	534,200	68,500
North Yuba River below Goodyear's Bar	244 sq. mi.	518,700	924,900	166,000
Middle Fork Feather River	672 sq. mi.	980,000	this was ton	
North Yuba River	571 sq. mi.	1,130,000	one opp man	
Sierra Valley	526 sq. mi.	130,000		
Herlong (includes 2)	567 sq. mi.	30,000		
Little Truckee R.	167 sq. mi.	180,000	was upon mon	soon come desp

In addition to the surface runoff there is the ground water, principally in Sierra Valley created by infiltration of surface water from the streams which drain the mountains and flow across the alluvial fans which border the valley. The ground water storage capacity of Sierra Valley has been estimated to be about 7,500,000 acre feet for a depth interval between zero and 1,000 feet. There are some artesian wells in the valley. High yielding irrigation wells may be located within two portions of the valley floor. One such area is near the southern end of the Sierraville arm of the valley floor; and the other is northwesterly from Loyalton. Wells for domestic and stock watering uses may be located almost anywhere on the valley floor except within areas underlain at shallow depths by impermeable rock.

There are some water quality problems with some of the ground waters of Sierra Valley which display a wide range in mineral quality. North and west of Loyalton the ground waters are usually poor in quality, and further north in the center of the valley south of State Highway 70 in Plumas County. Within this area there are hot springs and thermal artesian wells associated with faults. These waters are considered hazardous due to high electrical conductivity and excessive concentrations of boron, chloride, fluoride, iron, and sodium. Several wells also yield water containing significant concentrations







of arsenic and manganese. However, all of these waters which are unsuitable for most beneficial uses are located mostly in the center of Sierra Valley in Plumas County; with Sierra County only containing roughly about eight square miles adjacent to the northerly county in the center of the valley northwest of Loyalton by about five miles.

6. Land Use and Ownership

The generalized land use survey was conducted during the summer of 1968 prior to the more intensive planning work which was delayed awaiting the approval of the planning assistance grant from the U.S. Department of Housing and Urban Development, and permission to proceed with work from the State administering agency, the California Council on Intergovernmental Relations. The survey was conducted principally by automobile and a field crew using available maps secured from the county and state. Within the built-up community areas such as Downieville each use was spotted on the county assessor's block book maps in keeping with the proposed more detailed planning and zoning work programmed to follow in the following years, after the completion of this general plan. Other available sources of information on the existing land use was utilized available from federal, state and local agencies, reports, aerial photographs and a constant updating occurred leading to the development of the generalized fold-out map which follows this page - Existing Land Use & Ownership.

At the risk of being repetitious it must be stressed that, in the preparation of this report and the General Plan, the important thing was to arrive at reasonable general policies regarding the growth and development of Sierra County within a relatively short period of time; and that other more detailed planning would follow in logical programmed sequence. Thus Sierra County would institute a planning program and at the same time achieve eligibility to receive other grants in aid and loans to assist in the proper development of the county.

a. Land Use Pattern

Sierra County because of its location and mountainous terrain and its limited population and economy has a distinct and relatively simple pattern.







Of the total land area of 613,120 acres, most of it is forested - 501,120 acres or 74 per cent. The amount of urban, or built-up town area is about 3,000 acres or one-half of one per cent. The following table shows the breakdown of general land use.

EXISTING LAND USE - SIERRA COUNTY, 1968

Land Use	Acres	Per Cent of Total
Urban	3,000	0.50
Agricultural	60,000	9.79
Open and Barren	3,000	0.50
Streams and Lakes	6,000	1.00
Scrub, sage	40,000	14.00
Forest	501,120	74.21
Total	613,120	100.00

A description of the uses follows, but first a description of ownership is offered below.

b. Ownership

Throughout the course of this study all sorts of figures were published at various times commenting upon the extent of public land ownership in Sierra County. With so many variations in data the consultant attempted to discover from the various agencies involved what the up-to-date ownership is. Up to the day of publication of this report, there seems to be a small discrepancy, but it is minor. However, it seems that almost 61 per cent of the land in the county is in federal public land. Most of this is in the largest of the three National Forests which have land in the county. In addition to the National Forest land there is public domain land which totals 7,083 acres - a bit over one per cent of the county - all located at the eastern end of the county. It is in the BLM land ownership where the consultant has run into a discrepancy whereby the most recent acreage of 7,083 is being checked against several earlier acreage figures obtained in 1968.



The Bureau of Land Management has offered their holdings for disposal to interested public agencies and perhaps to private citizens once the public agencies have had an opportunity to accept or reject the land available. Up until the day of publication of this report only Toiyabe National Forest has indicated the extent of BLM lands it desires to add to the forest - 1,730 acres. Tahoe National Forest has yet to decide on which lands it may want from BLM.

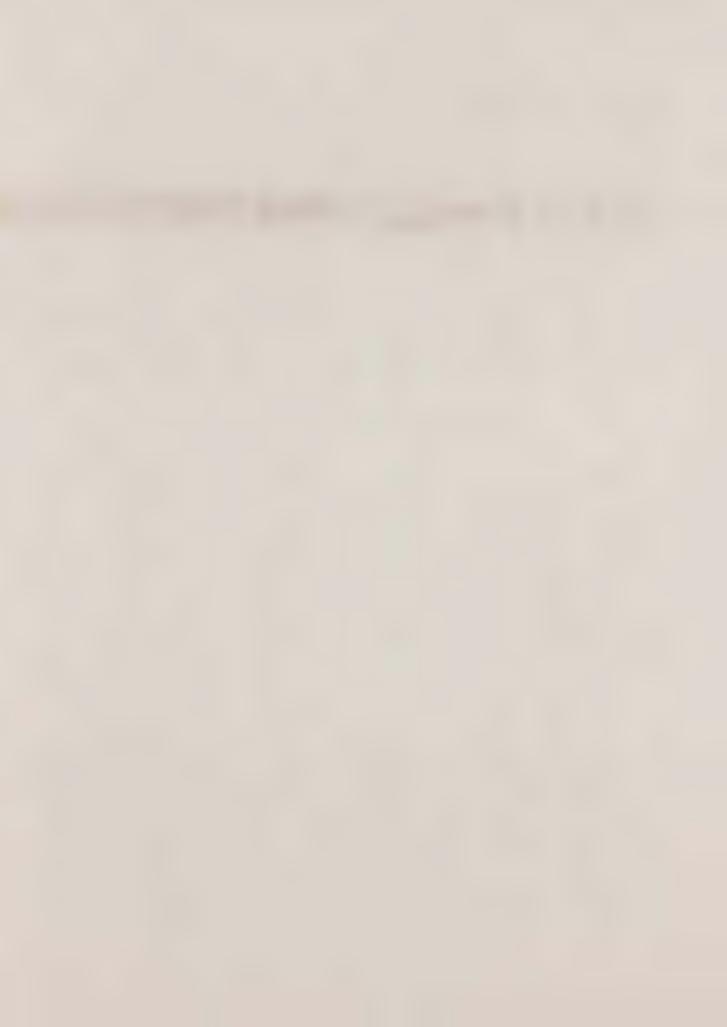
Insofar as private land ownership is concerned in terms of magnitude, it is known that the larger land holdings in the county accrue to ranchers in Sierra Valley, and by Fibreboard Corporation, Pacific Gas and Electric Company, Southern Pacific Railroad Company, amongst other corporations and individuals.

LAND OWNERSHIP - SIERRA COUNTY, 1970

Owner	Acres	Per Cent of Federal Land	Per Cent of County
Bureau of Land Management	7,083	1.90	1.16
National Forest Total	364,152	98.10	59.39
Tahoe National Forest	299,614	80.72	48.87
Plumas National Forest	39,801	10.72	6.49
Toiyabe National Forest	24,737	6.66	4.03
Total Federal Land	371,235	100.00	60.55
Private Land	241,885	este dos	39.45
Total	613,120	60.55	100.00

c. Urban

With such a small amount of urban land, it is no surprise that the population of the county is low, an estimated population of 2,400 persons. With the decline of the lumbering industry and mining which in past years provided the jobs and supported the earlier greater numbers of people, it seems that any additional increase or demand for urban land in the future will be slow or may not occur, and it may not be needed. Sufficient work has been done on the succeeding more detailed second-year planning studies to indicate that even a



doubling of population in the next thirty years can be easily absorbed in the present towns with little or no appreciable effect on the existing pattern.

Preliminary figures indicate that, within the towns, there seems to be on the order of from 400 acres or more of vacant land. Net developed land for single family residential use is about 200 acres. Other residential land for multiple family and two family use is about six acres. All commercial land for retail trade, retail service, hotels, motels, resorts and trailer parks located within the towns totals about thirty acres. Industrial land is on the order of forty acres, semi-public land for churches and the like is about four acres, and public land for schools, city and county offices, post offices is about forty acres, and mixed commercial and residentail use is about 32 acres. Detailed data will be included in next year's study.

d. Agricultural

Most of the estimated agricultural land lies in Sierra Valley. The estimated 60,000 acres is a bit higher than the 1964 Census of Agriculture published figure of 51,379 acres. The 1959 Census of Agriculture showed that 92,189 acres of land were in the county. The number of farms has declined in the five year period from 1959 to 1964 from 49 to 41 along with the decline in acreage. The average size of farm declined from 1,881 acres to 1,253 acres. Most of the farms were owner operated - 29 in 1964 and 27 in 1959. Part owner farms numbered 8 in 1964 and 13 in 1959. We can reasonably assume that owner operated family farms are prevalent. There was only one manager operated farm in 1964; only two in 1959. Tenant farms numbered three in 1964 and seven in 1959.

Most of the acreage in farms produces feed for the livestock, most of which is moved into the county from the lower valleys in the spring and summer. Crops are principally forage consisting of grass-legume mixtures used for pasture and hay. Grain crops of rye, oats, wheat and barley are grown on limited acreage.



e. Open and Barren

It may appear that open and barren land in Sierra County should be greater than the 3,000 acres estimated, particularly when one is gazing at a high rock faced mountain. Whether more or less land is presently in this land use category does not diminish the significant nature of such land in a mountainous region. The fact that precipitation, particularly in the form of snow, is caught by these areas points out the natural value of what some may call "useless" or undevelopable land. This land in concert with the other forested land is what makes the county as attractive as it is, in addition to the more functional natural role it plays.

f. Streams and Lakes

Before the construction of Jackson Meadow Reservoir by the Nevada Irrigation District in 1966, and the near completed Bureau of Reclamation Stampede Reservoir, it had been estimated that streams and lakes in Sierra County totaled about 1,880 acres. In addition to the numerous creeks and rivers in the county, the larger lakes such as Webber Lake, Independence Lake, and Gold Lake provided the water surface expanses. Jackson Meadow Reservoir on the Middle Yuba River in the south center portion of the county, straddles the common line of Sierra and Nevada counties. Lying at an elevation of 6,042 feet, it contains a maximum of 75,000 acre feet of water, with a total high water surface area of 1,080 acres. It is estimated that 700 acres of this are in Sierra County.

Stampede Reservoir, on the Little Truckee River, will inundate Stampede Valley in the southeast corner of Sierra County. At an elevation of 5,949 feet the high water surface area will be 3,420 acres. Both of these reservoirs are expected to draw large number of recreationists. Jackson Meadow Reservoir already has excellent recreation facilities constructed with money obtained through a state grant under the Davis Grunsky program by N.I.D. and administered and managed by Tahoe National Forest under an agreement with N.I.D.

Inasmuch as the future economic destiny for Sierra County appears to be recreation and tourism, these estimated 6,000 acres of streams and lakes are



the new mother lode attraction replacing the earlier mother lode attraction of gold. Water facilities are one of the keys to successful recreation and tourism growth and development; and these waters must be protected from both scenic despoliation and pollution in all its forms.

g. Scrub and Sage

The estimated 40,000 acres of scrub and sage are scattered throughout the county. There seems to be some doubt as to the exact amount of land in this classification. However, as part of a natural environment, and playing a role in the general ecology of an area, this use has value for natural habitat and browse. These areas will shift and vary as time goes on depending upon forest management practices and the influence of man-made burns and changing natural conditions.

h. Forest

The true value of the county, if one must raise the question of value, lies in the expanse of forested areas - almost three-fourths of the county - over 500,000 acres or 783 square miles. As to how much of this amount is capable of producing timber is difficult to estimate. From information received from Tahoe National Forest it seems that of its total acreage about 76 per cent, or 228,500 acres, is commercial forest land with an estimated timber volume of 4.4 billion board feet. It would appear that about 100,000 acres of the estimated 231,120 acres of privately owned forest land is capable of producing timber. A rough estimate of the timber volume of these lands would be on the order of eight billion board feet - almost six billion on National Forest land and over two billion on private land.

These forest lands should be preserved for their primary function of producing a renewable resource - timber, water, wildlife, grazing and the other ancillary beneficial uses it helps create.



7. Land Use Trends

In order to adequately measure land use trends, including trends in real estate value, which may provide guidance in projecting land use and development, a body of data must be collected over a period of time which very few but the most sophisticated planning agencies and governmental units make the effort and take the time to compile. These data are not readily available in Sierra County; so that, if any judgements are made, they must be recognized as being very tentative and subject to constant reexamination and change.

In the face of a reduced population and decreased industrial activity, it is hardly surprising that there has been comparatively little construction work in the county in the last thirty years, and little increase in real estate activity. From discussions with the County Assessor, real estate brokers and others concerning the nature of changes and values one is left with a rather cloudy picture. There has been some increase in subdivision activity which may be attributable to the general statewide increase in promoting the sale of recreation lots, retirement sites, presumed hedges against the forces of inflation, future speculative profit assuming great faith in the continued rise in property values, and so on. Some of these activities are beneficial, some are questionable as to the long term results. It seems that this trend may continue, and Sierra County will have to decide just how much of this will be permitted in the future. Because of remoteness and higher construction costs and conveience, the county is experiencing, along with other counties, an increase in the use of trailer homes and trailer module home units. is expected to increase. In general, therefore, trends in residential development are expected to slowly increase in the next thirty years, mostly for summer homes, some retirement homes, and possibly for permanent residences. The latter are dependent upon increased economic activity in the county, the region and the state. Trends in industrial development show that no projections for such use can be made. As a matter of fact, on the basis of recent trends, projections for further decline in industry could be made. No new industrial development is foreseen at this time. Trends in commercial development and projections for commercial use are equally difficult to assess. There may be some with the increase in recreation visits and tourism. A clear measure of



this will require a special study alone to properly arrive at meaningful conclusions. Some increase may be anticipated with an increase in resident population. Increases in commercial use, along with other land use projections, can be accommodated at the time of the more detailed study of the community areas.

It is expected that real estate values will increase in a growing market for summer homes and recreational activity. Present values range tremendously and trends are lacking. The value of agricultural land, for example, varies from \$150 to over \$250 per acre. Some of the privately owned forest land is valued at only \$20 an acre, sometimes more, dependent on location, size of parcel, terrain, etc. So it is with other land, such as some steeper land in the vicinity of Downieville and other areas where it ranges from \$224 per acre and up. Some smaller lots are for sale anywhere from a few hundred dollars to several thousand dollars, again depending upon, location, terrain, water, etc. Variations are tremendous.



8. Population

The population of Sierra County has tended to be fairly stable over the past several decades. Natural increases in population growth have been offset by outmigration. The following table shows the population growth for the county, Loyalton and California

	California		Sierra	Sierra County		City of Loyalton	
Year	Number	Per Cent Increase	Number	Per Cent Increase	Number	Per Cent Increase	
1850	92,597		-		-		
1860	379,994	310.4	11,387		-		
1870	560,247	47.4	5,619	-50.7	-		
1880	864,694	54.3	6,623	17.9	(84)		
1890	1,213,398	40.3	5,051	-23.7	-		
1900	1,485,053	22.4	4,017	-20.5	-		
1910	2,377,549	60.1	4,098	2.0	983		
1920	3,426,861	44.1	1,783	-56.5	442	-55.0	
1930	5,677,251	65.7	2,422	35.9	837	89.4	
1940	6,907,387	21.7	3,025	24.9	925	10.5	
1950	10,586,223	53.3	2,410	-20.3	911	-1.5	
1960	15,717,204	48.5	2,247	-6.8	936	2.7	
1967*	19,185,000	22.1	2,500	11.3	1,044	11.5	
1969**	19,476,000	1.5	2,406	-3.8	1,008	-3.5	
1970***	19,696,840	1.1	2,262	-6.0	-	-	
1960- 1970 Increase	3,979,636	25.3	15	0.7	-	-	

^{*} Estimates by State, except for special census for Loyalton, September 7, 1967 (showed 341 occupied housing units)

^{**} Estimate by State, except for special census for Sierra County and Loyalton taken July 21, 1969 (showed Loyalton with 322 occupied housing units and 29 vacant; Sierra County with 870 occupied housing units and 646 vacant)

^{***} Preliminary count by the Bureau of the Census as of April 1, 1970 which does not include military afloat

All other population figures from 1850 through 1960 are Bureau of the Census data.



One of the most interesting aspects of the observation of population growth for Sierra County are the losses due to outmigration. Between 1950 and 1960 a study showed that almost every age group suffered a decline. Most particularly the younger, productive, and reproductive and the aged. As shown in the table which follows, the net migration rates are estimates expressed as a percentage of the 1960 survivors (after the inclusion of adjustments made in the net migration estimates) of the 1950 population and births during the 1950-60 decade.

NET MIGRATION OF POPULATION, 1950-1960 Sierra County, California

	Tot	a1	Ma	le.	Fem	ale
Age Group	Number	Rate(%)	Number	Rate(%)	Number	Rate(%)
All ages	-374	-14.3	-193	-13.9	-181	-14.7
0-4	-4	-1.7	-	-	-4	-3.2
5-9	-11	-4.7	-7	-5.8	-4	-3.5
10-14	-13	-6.0	-14	-12.0	+1	+0.6
15-19	-84	-36.3	-49	-37.4	- 35	-34.7
20-24	-71	-41.1	- 39	-48.3	-31	-34.6
25-29	-25	-18.1	-9	-12.4	-16	-24.4
30-34	+16	+15.2	+10	+20.0	+6	+11.1
35 - 39	-21	-14.4	-8	-11.1	-13	-17.5
40-44	-31	-17.8	-15	-16.9	-16	-18.8
45-49	-17	-8.7	-7	-6.4	-10	-11.3
50-54	-17	-10.2	-7	-7.4	-11	-13.3
55-59	-5	-2.8	+2	+1,.9	-6	-8.2
60-64	-13	-10.7	-3	-4.1	-10	-18.2
65-69	-15	-10.9	-4	-4.4	-11	-21.4
70-74	-22	-24.4	-14	-23.0	-8	-27.0
75+	-43	-37.2	-29	-45.0	-13	-26.7

Source: Net Migration of the Population, 1950-1960, by Age, Sex, and Color, Volume I, Part 6, Western States, Economic Research Service, U.S. Department of Agriculture, Washington, D. C., May, 1965.



An analysis of the population and the economy for the county and the region have been made (as previously mentioned) by various agencies for different purposes. To date the most reliable population projections for the county and the state have been made by the Financial and Population Research Section of the Department of Finance for the State of California up to the year 1985. This agency shows an estimated population for 1969 and 1970 of 2,400 for the county; and up to only 2,500 for 1980 and 1985. The Meva Corporation, a subsidiary of Hughes Aircraft Corporation, projected population growth for the state and counties, and show an estimated population of 2,000 for Sierra County for 1970 and 1980; and an increase to 3,000 for 1990 and the year 2,000; then rising to 4,000 in 2010, and up again to 5,000 in 2020. This study was made for the California Department of Water Resources - "Domestic Water Use Planning", October 1, 1965.

An earlier study for the Department of Water Resources made by Pacific Planning and Research shows a projected population for Sierra County for the so-called "ultimate period", year 2020 to year 2050, of 16,000. The report was published in March, 1957 - "Future Population, Economic and Recreation Development of California's Northeastern Counties" - Appendix A of Bulletin No. 58, Northeastern Counties Investigation, June, 1960, Department of Water Resources, etc.

Other studies by A. D. Little Company, the Institute of Urban and Regional Development of the University of California, Berkeley for the State of California show only slight population growth for Sierra County for 1980 - 2,700 to roughly 3,000. Other studies made by the Department of Water Resources (as of October 29, 1968) show an estimated population for the county of 2,400 by 1975, up to 5,100 by 2,000 and 19,000 by the ultimate period, 2020 to 2050.

With the recent decline in net migration to the state and in birth rate the population projections will have to be reanalyzed. It seems evident that population growth may not be as great as estimated earlier for the nation, the state, state regions, regions within the state, and counties and other local governmental units. Also, with a changing and shifting economy it will require a continuous study of population growth in the future.



It appears highly unlikely, at this time, that Sierra County will experience a significant increase in population growth in the future. Unless there is a drastic improvement in the county's basic economy the various projections which have been made appear to be reasonable in slow, conservative population growth. The consultant tends to agree with the projections of the State that population for Sierra County for 1980-1985 would be about 2,500; and it would seem that by the year 2000 it might reach 3,000 persons.

For the sake of argument and perhaps to avoid the accusation of pessimism we might go so far as to say that the population may grow at a slightly greater rate so that by the year 2000 it may total 5,000 persons. It's doubtful, but let us assume it and attempt to distribute it throughout the county. It is emphasized that the distribution of future population is difficult to do, especially in Sierra County; and, it is at best, one of the many exercises with speculative numbers. Only more precise observations of trends in the future directly connected with zoning and land use controls which are presently lacking can point up more reasonably acceptable results. The table which follows shows this theoretical distribution of population for ten-year periods.

DISTRIBUTION OF SIERRA COUNTY PROJECTED POPULATION 1970 - 2,000

Community Area	1970	1980	1990	2000
Alleghany-Forest	170	190	210	250
Goodyear Bar	60	90	140	300
Downieville	400	420	500	700
Sierra City	240	280	360	450
Calpine-Sattley	100	240	410	700
Sierraville	350	420	580	800
Loyalton	1,008	1,040	1,100	1,200
Verdi	20	70	200	400
Scattered	58	50	100	200
Total	2,406	2,800	3,600	5,000



9. Economy

In the early years Sierra County depended on gold for its main source of income. It now depends on timber, production of lumber and wood products, agriculture, recreation and tourism. Mining has declined drastically to the extent that it is almost less than a shadow of what it used to be just 10 years ago when in 1959 \$762,440 in gold was produced, \$109,850 in sand and gravel, \$3,598 in silver, \$103,115 in stone, and \$112 in zinc. Compare this with 1967 production when gold brought only \$28,035, sand and gravel \$234,000, silver \$279, and stone \$15,000. It is estimated that mining employs only about 25 persons, if that.

a. Timber and Forest Products

At the time of the water resource study conducted by the state in 1955 and 1956 the major factor in Sierra County's economy was the production of timber. At that time about 393,000 acres or 64 per cent of the area of the county consisted of commercial forests. As reported by the California Forest and Range Experiment Station, 301,000 acres were public forest land in Tahoe, Plumas and Toiyabe National Forests, and 92,000 acres in private forest land. In addition, there were about 122,000 acres of noncommercial forest land. In 1951 there were 11 active sawmills in the county producing 1.4 per cent of the State's timber crop. The production that year comprised 66,600,000 board feet, including about 39,900,000 board feet of ponderosa pine, 17,600,000 board feet of true fir, and 3,300,000 board feet of Douglas fir. The remainder was in sugar pine and other soft woods.

In the 1966 so-called Sierra County General Plan report, the committee of citizens reviewed and wrote upon the timber economy. This was preceded by the Provisional Overall Economic Development Program report of 1962 wherein this economic segment was also covered. In the OEDP report reference was made to five mills in the county with a production capacity of 87 million board feet annually; with only four mills in operation in 1962. This is a decline of 6 active sawmills in the six years from 1956.



By 1966 the number of active mills declined further to three. At the present time there are only two mills. In 1966 it was reported that about 60 per cent of the 122 million board feet of timber produced on the forest lands. The other 40 per cent of the production goes to mills in surrounding counties for manufacture. It was estimated that 80 million board feet was being produced on publicly owned lands, while the other 40 million board feet were coming from privately owned lands in the county.

As published in the 1966 report -- "The forest lands of Sierra County are also producing high quality Christmas trees for the Yule season. The nearly 50,000 trees being produced not only provides late season employment, but returns approximately \$175,000 in income.

"The production of wood products is a \$6,000,000 industry and provides 40 per cent of the working force with an occupation. It is easily the most important industry in Sierra County with over 450 persons relying on it for an income.

"In the next 20 years there will be some reduction in manufacturing timber produced. By 1986, due to the cutting of virgin timber on privately owned lands, a drop from the present 122 to 105 million board feet will take place. However, as a result of the 'opening up' of these areas, there will be an increase in the number of Christmas trees cut, which will help decrease the losses which may result in the manufactured products.

"Because of the tremendous importance to Sierra County's (sic) economy, the large labor force hired, the production of abundant high quality water, scenic beauty and timber, every effort should be made to preserve, conserve and wisely use the forest areas. If forest lands are to be removed from timber production, a careful study should be made to determine whether or not there might be other lands which will meet the needs. All secondary uses, such as hunting, fishing, skiing, hiking, and other recreational uses, grazing and mining should be included in a plan for these lands unless they are detrimental to the primary purpose of producing timber. All roads and roadways should



be properly planned to not only afford access, but provide safety features which will lower the danger of fires and other calamities which endanger the forest.

"It is necessary to preserve the forests for the economy of Sierra County."

With only two active mills now in the county, it would be serious indeed for the economy of the county if one or both of these mills either reduce production or close. The largest mill vitally affects the welfare of Loyalton, as it is adjacent to the city. As of July 23, 1969 this mill -Feather River Lumber Co., a part of DeGeorgio Corporation - had 229 employees. Normally the company has 265 employees. Affected by the seasons, employment drops off by 20 to 30 employees in the Fall and early Winter. It had a payroll of 1.5 million dollars in 1968. In addition to the plant employees, the industry creates work for from 100 to 150 gyppo loggers and truckers. Of the plant employees about ninety reside outside the City of Loyalton. The mill produces 100 million board feet of lumber each year; and ships out one million bags of bark to which is added nitrogen after it has been dried, sized, screened. In addition to the finished lumber and bark, the mill produces wood chips which are shipped to Fibreboard in Antioch; and baled shavings for use in cattle pens, litter for poulty raisers; and it also produces box shook.

The company is contemplating the construction of a new planing mill which would require twelve fewer employees. In addition, the company is experimenting with production of presto logs and a high BTU cylindrical charcoal.

The other mill is located at Sattley - the Holstrom Lumber Company. It produces 10 million board feet of rough dimension lumber per year with an average of 25 employees per year supplemented by about 12 additional employees for about six months of the year from May to November. The mill had a payroll of about \$135,000 in 1968. This industry creates additional work for from two to three gyppo loggers or about up to 15 men.



Historically employment in the timber industry in Sierra County declined from 295 employees in 1940 to 170 employees in 1950, rose to 262 in 1960 and was estimated to be 225 in April, 1968 by the figures shown for the Loyalton labor market area of the State Department of Employment. Projections shown in Bulletin 58 of the Department of Water Resources have a total of 1,380 employees in the timber industry for the ultimate period, year 2020 to 2050 out of the forecasted population of 16,000. This, at the present time, seems to be a very optimistic increase in light of the recent closing of active sawmills in the county.

b. Agriculture

Agricultural pursuits, principally in Sierra Valley, have provided a source of wealth for Sierra County. The availability of public lands for grazing, and the climatic limitation to forage crops, have made the production of livestock the major activity. In 1955 and 1956 Sierra County showed an irrigated farm area of about 21,600 acres, including 20,700 acres of improved and meadow pasture. The remaining area was devoted to alfalfa and grain hay. The County Agricultural Commissioner's report for 1955 shows the gross value of agricultural products for that year to be about \$731,000. This is almost entirely from the sale of livestock and associated products.

In 1959 about 92,189 acres of 15 per cent of the county area was in farms. At that time there were 49 farming units. Irrigated lands totaled 21,582 acres; 12,000 acres were classified as cropland. About 47,000 acres were used for pasture; orchards totaled about 50 acres. The remaining acreage was classified as woodland, part of which was grazed. Agricultural products totalled \$1,148,000 in 1965, with \$486,800 coming from livestock and poultry, and \$661,200 from crops.

The value of all agricultural products in 1967 rose to \$1,193,720; and in 1968 it dropped to \$990,260. In 1967 the value of crops was \$675,720, and the value of livestock was \$500,000. In 1968 crop value was \$534,060, and livestock value was \$456,200.



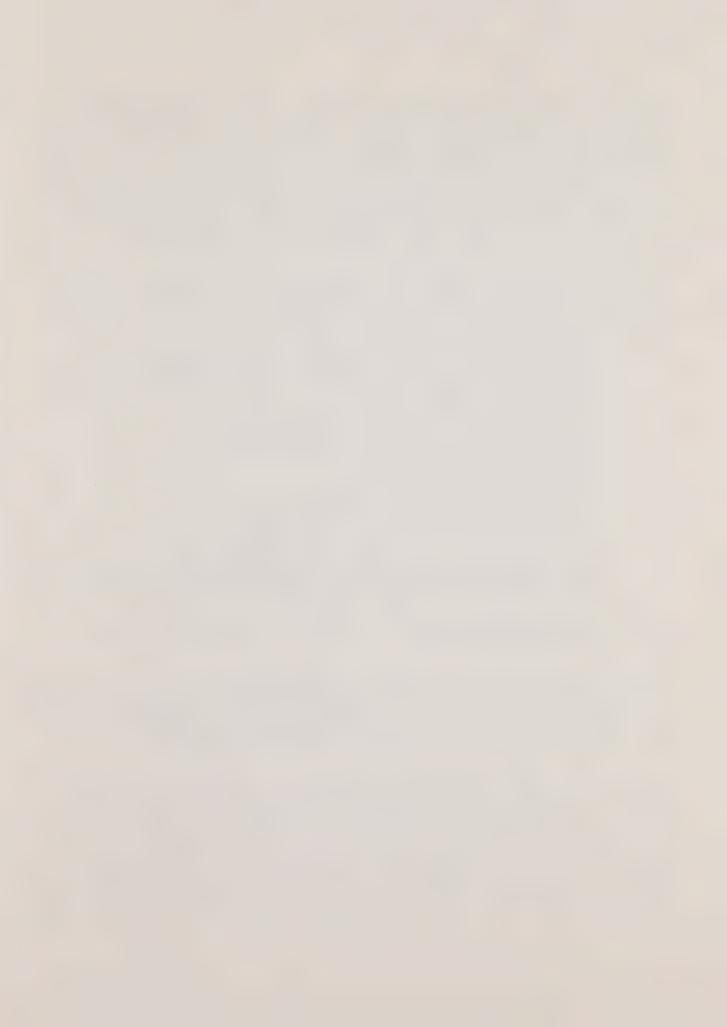
There has been a trend in Sierra County as in other pasts of the State and the country for fewer farms with larger acreage. Census figures show that the number of farms steadily declined from 92 in 1930 to 86 in 1940, to 69 in 1950, to 66 in 1954, to 49 in 1959, to 41 in 1964, while the average size of farm was 1,300 acres in 1930, 699 acres in 1940, 1,211 acres in 1950, 1,401 acres in 1954, 1,881 acres in 1959, and 1,253 acres in 1964.

In the words of the committee as published in the 1966 report -- "In projecting the future of agriculture for Sierra County to the year 2,000 some of the changes which may continue as as follows:

- 1. Farmers will be using more borrowed money to operate their unit.
- 2. More brush land will be converted to improved varieties and species and increased feed production.
- 3. More fertilizer will be used to increase yields.
- 4. Improved technology will increase beef yields.
- 5. More water for irrigation.
- 6. Improve the efficiency of irrigating.
- 7. A decrease in the grain and grain hay produced.
- 8. Net income due to agriculture should remain stable.
- 9. Due to rising costs the numbers of cattle which winter in the county may increase or the cow and calf operations may become strictly summer pastures for stockers and feeders.
- 10. There is a possibility of an increase in the production of apples for commercial outlets.

"Because agriculture is an important source of income to Sierra County, careful consideration should be given to any changes which may be proposed to decrease the land being used for the production of agricultural products."

It seems likely that in the future the importance of agriculture in Sierra County will increase, if the projections developed for the State as shown in the aforementioned Bulletin No. 58 come true by the ultimate period - by the year 2020 to 2050. These projections show that by that time there may be an estimated 280 farm units with 250 of these irrigated and the remaining 30 non-irrigated. Total farm acreage may be 100,000 acres with 83,000 of this amount



irrigated and 17,000 acres non-irrigated. It is expected that the average size of farm may decrease to 357 acres. The farm population may increase to 850; and farm employment to increase to 300 per year. All of this seems highly doubtful at this time.

What does appear more likely is for a slow increase in developed irrigated farm acreage in larger units for reasons of economy. Although this is a state-wide trend now, and has gained some inroads in the county, it doesn't seem likely that the owner-operated family farm will be as prevalent in the future. Present impression is that there will be larger farm units under intensive management practices, with greater investment in equipment and irrigation, and more intensive production along the same lines as today - more beef and forage crops. Certainly the trends have been in this direction; and it doesn't seem too likely that the future would present other different agricultural production.

c. Balance of the Economy

A good share of the balance of Sierra County's economy is in the broad category of government including teachers. The latest figures published by the State Department of Employment in 1968 showed that there were, on the average, 225 employed in this category. On the average, fifty are employed retail trade and service; 25 in transportation, communications and utilities, others in other service categories.

d. Income of Families and Unrelated Individuals

Comparisons of family income and family and unrelated individuals are shown below for the county and for the state. It seems that the county gross median family income between 1949 and 1959 has not kept pace with that of the state. However, that for families and unrelated individuals has kept up fairly well with the state, and with a slight one percent increase.



GROSS MEDIAN INCOME OF FAMILIES AND UNRELATED INDIVIDUALS FOR SIERRA COUNTY AND CALIFORNIA, 1949 & 1950

	1959		194	1949	
	Number	Income	Number	Income	
Families					
Sierra County	645	\$5,863	610	\$3,217	
California	3,991,500	\$6,726	2,827,465	\$3,603	
Families and Unrelated Ind.					
Sierra County		\$5,401	840	\$2,938	
California	5,559,955	\$5,527	3,289,465	\$3,023	

e. Income of Sierra County

Sierra County's income is obtained through the property tax as well as from other sources including state and federal government. In the fiscal year 1959-60 the major source of revenue was from property taxes from county assessments and from state assessments of utilities. In 1964-65 this revenue source was only 24 per cent; and in 1968-69 it was 29 per cent. The various local governmental units also utilize the basic property tax as well, but some obtain additional revenue from user fees and hook-up fees, in the case of water districts, for example. In the following table the county's revenue sources are shown for three years, giving some idea of the scope of revenue sources.

As a separate and distinct entity the Sierra-Plumas Unified School District levies its own taxes on property and secures other revenue from state and federal sources. Its budgeted income in 1969-70 totaled \$850,402 - \$235,000 from property taxes; \$278,000 from the U.S. Forest Reserve Fund; about \$240,000 from state apportionments and special education fund; cash reserve of \$80,000; and the balance from miscellaneous sources.



SIERRA COUNTY REVENUE, 1960, 1965 & 1969

Revenue Source	1968-69	% of Total	1964-65	% of Total	1959-60	% of Total
Property Taxes	\$283,877	28.9	\$197,002	23.6	\$202,473	30.7
Property Taxes- Prior Years	10,990	1.1	19,932	2.4	-	-
Sales & Use Taxes	15,172	1.6	15,748	1.9	10,450	1.6
Franchies, Permits	1,920	0.2	3,280	0.4	1,189	0.2
Fines & Penalties	7,739	0.8	8,217	1.0	6,420	1.0
Interest	26,462	2.7	14,945	1.8	4,224	0.6
Alcoholic Bev. Lic.	5,812	0.6	5,467	0.7	5,485	0.8
State Aid-Aviation	2,500	0.3	1,946	0.2	3,128	0.5
State Hwy Users Tax	245,694	25.0	248,969	29.9	197,928	29.9
State Mtr Veh Lic Fees	10,675	1.1	10,007	1.2	7,700	1.2
State Trailer Coach Tax	1,079	0.1	827	0.1	331	0.1
State Welfare, Social Aid	42,466	4.3	40,162	4.8	37,872	5.7
State Hwy Users Tax (2106)	21,693	2.2	(19,932)	2.4	-	-
State Cigarette Tax	2,889	0.3	4/0	-	-	-
State & Fed Disaster	57,350	5.8	81,334	9.8	30,176	4.6
State Aid to Veterans	1,110	0.1	1,138	0.1	1,493	0.2
Fed Welfare-Social Aid	53,452	5.5	54,748	6.6	38,782	5.9
Fed Forest-Grazing Fees	138,920	14.2	75,979	9.1	81,544	12.3
Other Gov't Agency Fees	5,795	0.6	1,255	0.2	-	-
Charges for Current Serv.	28,745	2.9	19,800	2.4	19,877	3.0
Other Revenue	16,964	1.7	32,912	4.0	12,127	1.8
Total	\$981,304	100.0	\$833,718	100.0	\$661,369	100.0

Note: Percentages may not total 100 due to rounding



Expenditures for Sierra County this past year shows that the bulk of the revenue was spent for roads - over \$464,000; welfare and social aid over \$132,600; the Sheriff's office - over \$66,500; administration including Board of Supervisors, Finance, Assessor and others - over \$222,000. Over \$27,000 was spent for airport; over \$22,000 for the superior court and grand jury.

Expenditures budgeted for 1969-70 for the school district totaled over \$790,000. The bulk of this for instruction - \$478,000; \$65,000 for transportation; \$116,000 for operation and maintenance; \$18,500 for administration; \$46,400 for fixed charges; \$2,700 for food service; \$11,200 for community service; capital outlay - \$39,000; earthquake safety - \$12,000; and balance to reserve of \$60,000.



GENERAL PLAN

The planning problems in Sierra County are somewhat compounded because of its mountainous terrain, limited transportation and access, variations in climate, limited economy and tax base, and high percentage of land (60%) in federal ownership. The problems and their solution require close cooperation and coordination among all agencies. The general plan consists of five elements, four of which appear on the fold-out map, GENERAL PLAN 2000 which appears at the end of this section of the report following page 109. The housing element does not appear on the plan but is treated in descriptive form at this time. In the years that follow this element may be included in some manner on the plan map. The plan elements are described in the pages which follow and include land use, transportation, public facilities (including the water and sewer element), recreation, and the housing element. Information on existing conditions is included in these descriptions with the exception of land use which was previously included in the planning background and research section.

II. LAND USE

In any general plan the land use sets the pattern for the entire plan. The land is classified for its highest and best ultimate use consistent with good resource management practices. In consultation with the forest service the broad classification of land use developed by this agency were examined and, in most cases, applied to those publicly owned lands where so proposed by the forest service. It appeared to be reasonable and desirable to generally follow the land classification system developed by Tahoe National Forest, Plumas National Forest, and Toiyabe National Forest to the privately owned lands which appeared to fit the classifications. It is safe to say that when more detailed planning studies follow these land classifications may be varied somewhat, and possibly different classifications utilized. Descriptions of the land use classifications follow.



A. General Forest

The general forest area occupies most of the area within the county. This classification is utilized by Tahoe National Forest and Plumas National Forest as the General Forest Zone; however, Toiyabe N. F. utilizes the classification of Intermediate Zone. There are a few small spots within this area which the forest service has classified as their "Crest Zone". However, because they are so small in area and few in number they were not isolated; but they can be shown if necessary as a special land use classification.

This area is primarily for timber production, recreation, water conservation and grazing. It contains a rich combination of habitat for commercial timber stands, livestock, some big game, scenic beauty, and is highly productive. It produces important quantities of water for streams and underground storage. Some portions of this area are extremely critical in terms of watershed values and can tolerate only limited disturbance.

B. Intermediate Forest

This area classification is termed the "Front Zone" by Tahoe N. F. and "Lower Zone" by Toiyabe N. F. Perhaps the classification might be better identified as lower forest. This area includes mainly the noncommercial forest areas below the general forest area. Often, the soil is erosive, and there is scant precipitation. Conservation of soil and water are important. It includes major areas of wildlife habitat and is well suited for range-wildlife developments such as revegetation and other improvements. This land use area is shown only on the slopes immediately fronting Sierra Valley.

C. Agriculture

Although there are small isolated offshoot areas where grazing occurs throughout the county, this classification is applied to Sierra Valley for obvious reasons. With lands having a high water table, they are best suited for cattle grazing and production of feed and field crops. These lands support most of the agricultural economy of the county and should be protected to prevent the



the intrusion of subdivisions and other uses not compatible with agriculture or agricultural assessment.

D. Recreation

Areas which are best suited for outdoor recreational uses including the widest variety of recreation are shown in six locations. These are broad areas which will require more intensive study at a later date. There is no question but that the Lakes Basin area is primarily a recreation area and should be so treated. The Milton Reservoir-Jackson Meadow Reservoir-proposed English Meadow Reservoir area in the south-central boundary area of the county on the Middle Fork of the Yuba River is another such area. The Stampede Reservoir area in the southeast corner of the county is another significant recreation area. The area at Weber Lake is a logical recreation area which may be developed partially for winter sports, in addition to other recreational uses, and possibly some summer homes. Another winter sports area and general recreational area is shown west and north of the junction of State Highway 89 and Henness Pass Road. The high area near State Highway 49 is suited for recreation in addition to its present winter sports area and campground.

E. Water Influence

This classification is applied by the forest service to include varying widths bordering major rivers, streams, lakes and reservoirs where water is the chief attraction for present and potential recreation use. It often encompasses travel routes adjacent to bodies of water, but ordinarily does not include minor small lakes and streams. Recreation and protection and improvement of water and adjacent area is emphasized.

F. Travel Influence

This classification is applied to areas of varying widths bordering main and secondary travel routes where topography and natural features provide conditions favorable for the development of recreation facilities and commercial facilities to serve both the recreationist and traveling public. Land use controls for such areas must carefully protect the values which attract recreation use and traffic to the areas. Timber harvesting, grazing and other resource uses and activities, where compatible with recreation and scenic values, are carried on.



G. Urban

This classification is applied to land areas which are presently, or may in the future be suitable for the concentrations of population to be served by urban services and conveniences such as domestic water supply, sewers, fire and police protection, schools, retail stores, commercial services and industrial development. All of the present townsite areas are shown, and the existing communities where most of the present resident population and future resident population will live.

The urban condition now and in the future must be studied in much greater detail. Present maps and information are inadequate at this time to provide the basis for such detailed study. Accurate, detailed maps and information must be obtained so that townsite and community ownership patterns and platting can be examined and investigated. Then, if increased land for expansion is required, land use controls can be applied properly keyed to detailed land uses and terrain conditions, water systems and extensions, and sewers, where required. Increased future land requirements for industry and commerce seems dim at this time.

H. Land Use Standards

Standards of population density and building intensity normally found in the more urban-type land use plans are not readily applicable to Sierra County at this time. It has been stressed that whatever permanent population increase is experienced in the county should be directed to the existing urban areas and townsite areas within the National Forests. Specific density development standards will be made when the more precise maps, plans and zoning plans are prepared in the next two years along with subdivision development standards.

In the meantime, it would behoove Sierra County to analyze each proposed development independently on its own merits, in keeping with the planning policies and principles adopted. Also, the following general standards be adhered to:



1. Residential Areas

	Dwelling units per developed acre	Minimum lot area*
Low low density	1.0	1 acre
Low density	5.0	6,000 sq. ft.
Medium density	20.0	6,000 sq. ft. or 2,000 sq. ft. per unit

^{*}Based upon available water and sewer system. May be increased dependent upon lack of same, and in accordance with inspection and requirements of county medical officer and sanitarian.

2. Commercial Residental Areas

Hotels, motels, resorts - No. of units per acre variable depending on site, availability of water and sewer. Special use permit procedure advisable. From 5 to 20 units per acre (each unit accommodating 4 persons).

Use permit advisable.

3. Commercial Areas

Retail floor space 1 acre per 1,000 people in service area

Total floor space 2 times retail floor space

Off street parking ratio 4 sq. ft. for each sq. ft. of floor space

Grand Total 8 acres per 1,000 population. Use permit.

4. <u>Industrial Areas</u> 5 to 10 employees per acre. Use permit.

5. Outdoor Recreation Areas

Low density camp & picnic 5 units per acre (each unit with 4 persons)

High density " & " 10 " " "

High density trailer

(urban) 15 " " "

Organized camps 2 " " "

Special use permit procedure recommended

All other land use areas should be governed by special use permit procedures depending upon the specific uses proposed and which are permitted in each area.



III. TRANSPORTATION

The transportation system in Sierra County is relatively simple because practically all people and goods are moved by motor vehicle of one kind or another on the roads and highways in the county. For most people a car is essential, although it is possible to make a trip with the use of public carriers. Trucks and vans are used to move and deliver materials and goods; however there is one railroad which serves Loyalton and specifically the lumber mill therein - the Western Pacific - which meets the transcontinental tracks at Hawley in Plumas County, about eight miles east of Portola.

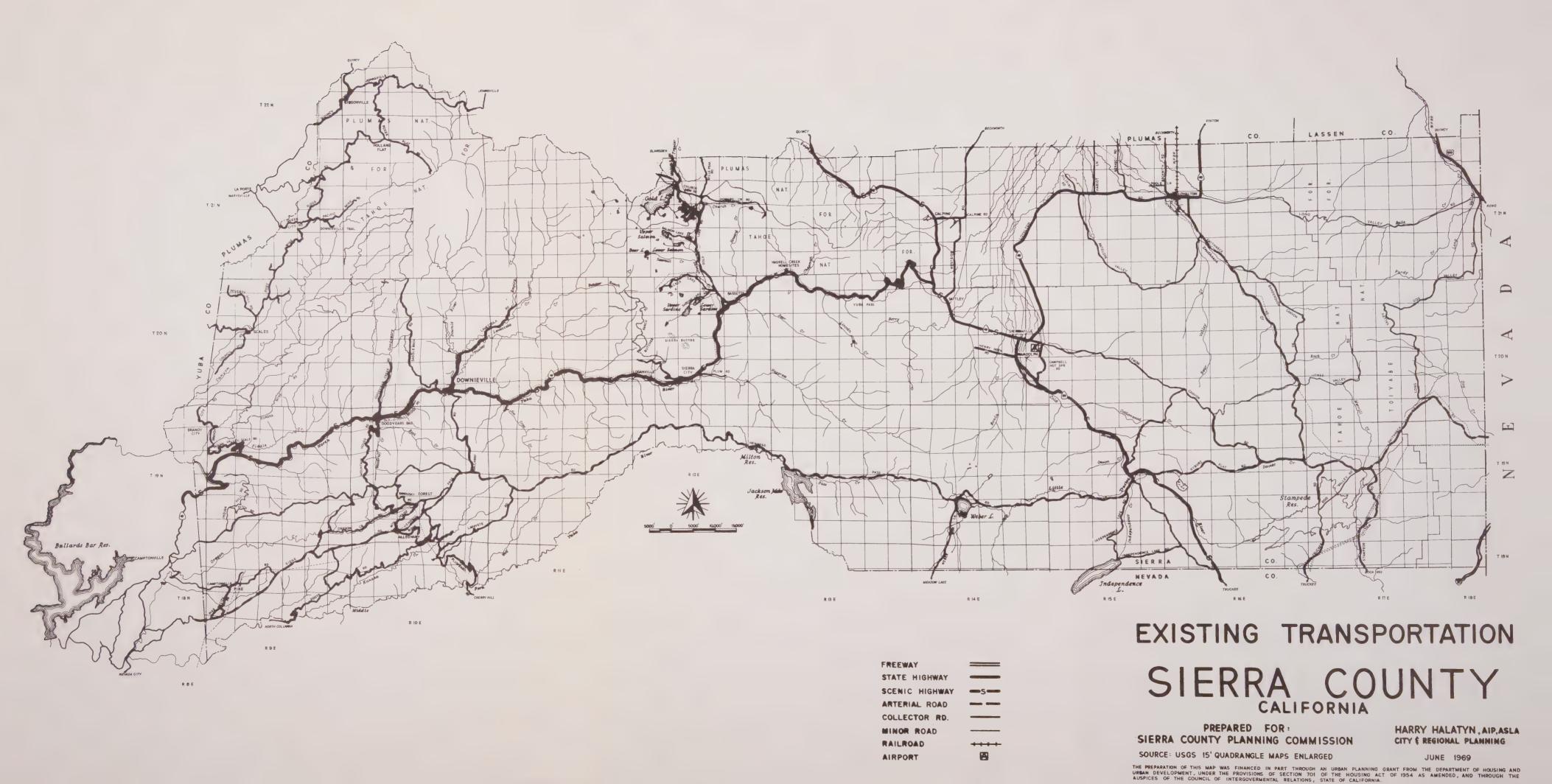
The map, EXISTING TRANSPORTATION follows this page. The transportation plan is shown on the general plan map which follows page 109.

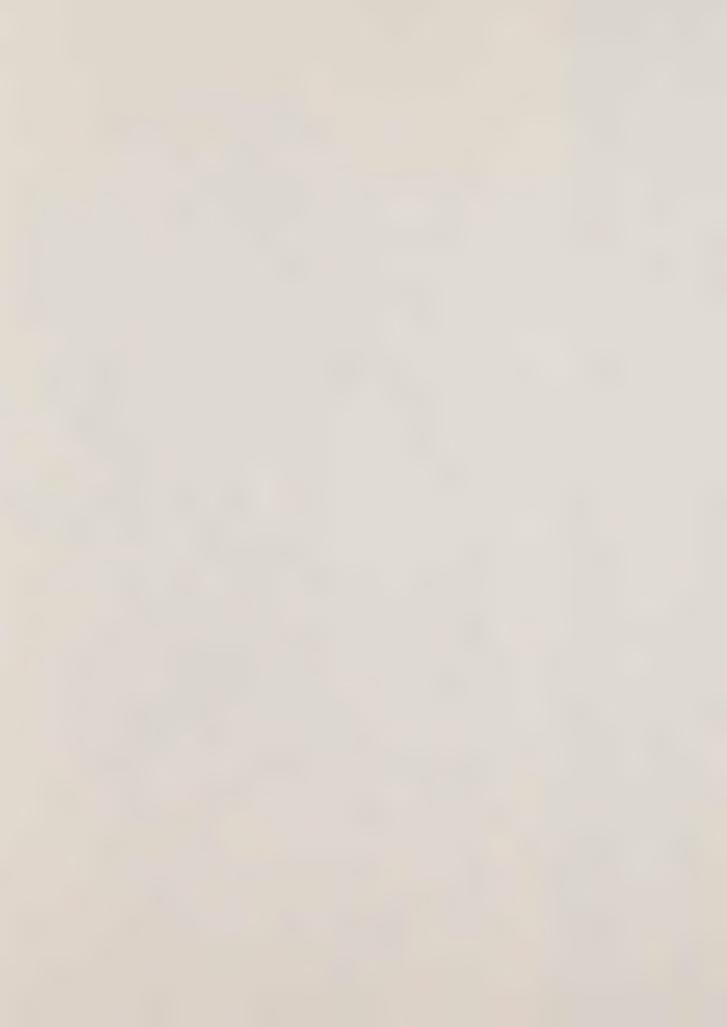
A. Airports

The only licensed airport in Sierra County is located at Sierraville. It is classed as a Basic-Utility I field, owned and operated by the County of Sierra. The runway has a length of 3,250 feet which is paved of asphaltic concrete. There are 1,000 foot long clear zone easements at each end of the runway; and the runway can be lengthened to 4,000 feet. Private, light aircraft use this facility from time to time. There are two other unlicensed air strips - one at Loyalton which is essentially closed to traffic, and the other at Alleghany. These have been used infrequently by private fliers and for fire suppression purposes as required; and they are unimproved.

The Sierraville airport is unattended. Future requirements should force consideration as to further improvement of the present airport either on a short-range basis with an increased runway and other facilities to serve for the next ten to twenty years; and developing a new airport at a different location in Sierra Valley where a runway with a minimum length of around 6,000 feet with safer approaches can be built. This new airport is shown on the general plan map. There is no question but that there will be an increased need for







an improved field to serve the growing number of recreationists, along with the summer-home or second-home visitors who will fly-in; and for general aircraft safety for other planes requiring emergency touchdown; and for disaster aid.

B. Trucking and Transit

Delivery of products and goods is provided by several carriers. Service is provided by United Parcel Service. The Downieville Stage Line provides service to Nevada City from Downieville by delivering mail, passengers, and small goods and products under a mail contract and a contract haulers license. Its schedule is six days a week (Monday through Saturday) when it leaves Downieville at 8:30 a.m. scheduled to arrive at Nevada City at 10:00 a.m.; where it leaves at 12:30 p.m. and arrives at Downieville at 2:30 p.m. Passenger fare is \$3.00 one-way or \$5.00 round-trip.

A comparable stage serving the balance of Sierra County east of Downieville is the Reno-Loyalton-Calpine Stage Line with a mail contract and an I.C.C. permit to haul passengers and freight. Its schedule is five days a week for freight and six days a week for mail and express when it leaves the Greyhound Bus terminal in Reno at 6 00 a.m. and arrives at Downieville at 11:30 a.m. with stops along the way at the various communities. It leaves Downieville at 12:15 p.m. and arrives at Reno at 5:00 p.m. Passenger fare is five cents per mile one-way or two and one-half cents per mile round-trip only between Reno and Sierraville.

C. Roads and Highways

1. Present System

The road and highway system is the lifeline of Sierra County. Although many of the roads and highways are narrow, steep and tortuous because of the mountains and streams without them there would be precious little activity in the county. With them the visitor and the resident is treated to some of the best scenery in this country, and can enjoy many recreational acitivities in a pleasant atmosphere. Some of the roads are the responsibility of the



U. S. Forest Service; others the responsibility of Sierra County; and, of course, the major highways are maintained by the State Division of Highways.

The main arterial routes are State Highways 49 and 89. Highway 49 provides a generally east-west access through the county. Beginning with its major junction with Interstate 80 at Auburn it continues to Grass Valley-Nevada City and onward to the Sierra County seat at Downieville, on to Sierra City along the North fork of the Yuba River to the important junction with Gold Lake Road at Bassetts, the access point of the scenic and recreation playground of the nationally known Lakes Basin area. The highway proceeds easterly where it joins State Highway 89 at Sattley. At this point and easterly to Sierraville both 49 and 89 are one road; at Sierraville 49 proceeds along the edge of Sierra Valley to Loyalton, where it turns nothe and enters Plumas County and joins State Highway 70 at Vinton. Within its entire length in Sierra County, Highway 49 is 64 miles long; and the westerly portion of it from the Yuba-Sierra County line to Sattley or Sierraville has been designated as an "Official Scenic Highway".

State Highway 89 is also designated as an official scenic highway. As it enters Sierra County south from its junction with Interstate 80 at Truckee it traverses some of the most scenic area in the High Sierra, as it crosses the Little Truckee River and proceeds along Sierra Valley through Sierraville, Sattley and Calpine, and then northerly to Plumas County where it joins State Highway 70 at Blairsden on the Middle Fork of the Feather River. This state route is 29.58 miles long in Sierra County, including the 4.9 miles it shares with 49 between Sattley and Sierraville.

In addition to the two state highways in the county, two federal routes touch the county - U.S. 395 combined with State Highway 70 crosses 3.18 miles of the northeastern corner of Sierra County on its way to Reno, Nevada, and Interstate 80 as it crosses 1.59 miles of the southeastern corner of the county.

In the Fall of 1968 the Sierra County Board of Supervisors requested the State Division of Highways to study the scenic highway. As the first step toward



designation of these two routes as official scenic highways, the Division of Highways has undertaken a "corridor survey" in accordance with Chapter 2 of the "Guide for the Designation of an Official Scenic Highway". This study should be of great value to both the State and the County in determining the future development of these two routes and abutting land uses. Improvements are necessary but they should be made reasonably recognizing the needs of Sierra County to protect its tax base, which is quite small in relation to the State, and other counties in the state.

It is important for Sierra County to have good state highways as has been previously mentioned. Therefore, it is interesting to observe that both the County and the State desire improvement, but reasonably so - conserving land and designing modified routes rather than wasteful freeways. Rather than a full freeway type of improvement, which is expensive, wasteful and unnecessary in mountainous areas, the state proposes improved safety features such as sight distance, improved gradients where possible, curves of not less than 450 feet radius, and a thirty-two foot paved section on an almost ten-mile portion of State Highway 49 between Indian Valley campground and to a point a half-mile west of Downieville. This section is to be constructed this next year or the following year.

The county road system totals 395 miles - 161.12 miles of which is in the select system. There are five federal aid secondary (FAS) routes in the county's select system having a total of 60.87 miles. It is estimated that only about twelve per cent of the county road system is paved; the bulk of the roads being composed of graded roads with a base of either earth, gravel, crushed rock, or rock. Since construction monies, by law, can only be spent on select system roads, the relative importance and priority of proposed improvements must be carefully developed and adhered to. As of June, 1968 the county road system was deficient, for one reason or another, a total of \$23,000,000 covering 348 miles of the total 395 miles in the system. Of this the select system deficient mileage was 136.3, and the minor system was 211.8 miles. The select system deficiency costs totalled \$10,995,000; and the minor system deficiency costs amounted to \$11,998,000.



In addition to improvement costs which are that much greater in mountainous areas, there are the problems of increased costs of maintenance. Periodically, hillside sloughing occurs which add to the problems and costs; ocassionally greater landslides occur, and snowslides. The cost of snow removal is another factor. In addition, snow and sub-freezing temperatures affect the design of roads, increasing costs; and add to the growing costs of road maintenance and replacement. The danger of accidents and injuries on roads also increases in areas such as alpine Sierra County.

2. Present Traffic Volumes

At the present time most of the roads and highways can handle the traffic demands made, both year round and during the peaks occurring during the recreation season. Traffic volume count records maintained by the State Division of Highways were collected, tabulated and analyzed from 1949 to 1968. Prior to 1961 annual traffic counts were taken by the state manually at fewer locations on a July Sunday and Monday covering only a sixteen hour daily count for both days. From 1961 to the present time more counts are taken on a more continuous basis with traffic counting equipment.

From 1949 to 1960 traffic increased nominally at various count stations on State Highways 49 and 89. The sixteen hour Sunday count in July of 1949 west of Downieville was 1,020 vehicles. At this same location in 1960 the Sunday July count was 1,306, an increase of 28 per cent. The following Monday count in July of 1949 for this location was 1,053; and in 1960 it was 1,050. In 1961 the traffic counts were taken in such a way that average daily traffic for the peak month during the year was noted, along with annual average daily traffic; and this was subsequently followed in later years with the additional the peak hour count. For example, the 1961 count for the same location west of Downieville was the average daily traffic of 550 vehicles for the peak month; the average daily traffic for the year was 320 vehicles. In 1964 these traffic volumes were 810 and 490 respectively; and they increased again in 1968 to 1,200 peak month ADT and 750 annual ADT - or an increase of from 48 to 53 per cent in the four-year period from 1964 to 1968.



In 1964 the peak hour count was 100; and this rose 60 per cent to 160 in 1968.

Traffic volume counts east of Downieville on State Highway 49 to Sierra City increased at a greater rate in the past four years. East Downieville's peak hour count increased 127 per cent, as the peak month ADT increased 114 per cent, and the annual ADT increased 124 per cent.

The seasonal recreation traffic impact is seen on State Highway 89 and 49 at Sattley where the volume on 89 north of Sattley increased 87 per cent in the last four years from 1,500 peak month ADT in 1964 to 2,800 peak month ADT in 1968. In contrast, the traffic volume count on Interstate 80 was 10,400 peak month ADT in 1964, increasing 49 per cent to 15,500 in 1968.

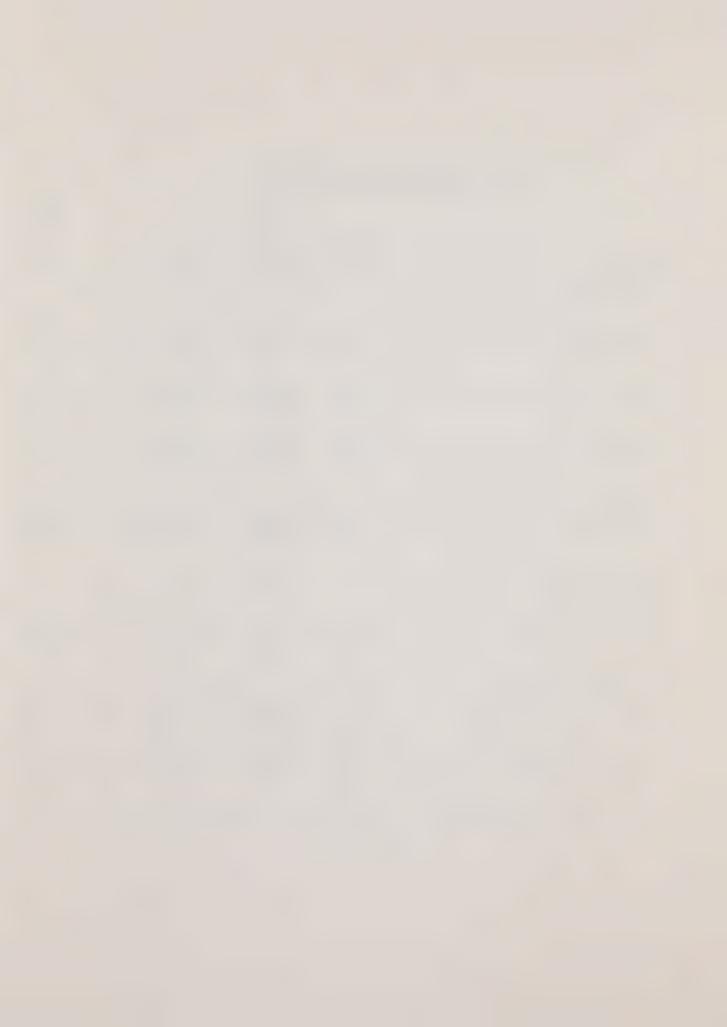
3. Proposed Roads and Highways

The fold-out map, GENERAL PLAN 2000, shows the proposed system, along with the other general plan elements. The changes proposed which appear on the map with a dash line. The proposals for the system are described following the table prepared by the State Division of Highways showing traffic volume counts at various points on the two state highways for 1969 and 1990.



TRAFFIC VOLUMES ON STATE HIGHWAYS IN SIERRA COUNTY, 1969 & 1990

		1969		1990
DOWN 10	Peak	A D		A D
ROUTE 49	Hour	Pk. Mo.	<u>Annual</u>	ADT
Sierra County Line				
	160	1,200	770	1 250
Saddle Back Road	170	1,250	790	1,250
	170	1,250	790	1,250
County Bood D17	170	1 700	820	1 700
County Road P17	170	1,300	820	1,300
		_,000		1,370
County Road P16		1,350	840	
	180	1,350	840	1 770
West City Limits Sierra City	160	1 250	780	1,370
Wose die, minies stolla die,	100	1,200	700	1 270
Gold Lake Road	160	1,250	780	1,270
	75	590	370	600
North Jct. Rte. 89, Sattley				
(Break in route)				
Sierraville, South Jct. Rte. 89_				
Ciampavilla Laman Canyon Dd	100	1 200	740	1 700
Sierraville, Lemon Canyon Rd.	170	1,200	640	1,300
		2,200		2,200
Antelope Valley Road				
Heriot Lane Drive	180	1,100	680	1,200
	180	1,100	680	
				1,300
Smith Creek Road_		1,100		1 100
	100	910	630	1,100
Sierra-Plumas County Line				



		1969			1990		
ROUTE 89	Peak Hour	A D T Pk. Mo. Annual		ADT	Peak Hour		
Sierra County Line							
Sierraville	300	2,750	1,250	2,700	675		
	180	1,650	750	1,870	505		
Jct. Rte. 49 West	190	1,350	620				
Calpine Road	170	1,100	580	1,550	475		
Sierra-Plumas County Line	120	820	430	1,550	475		

^{*}Average Daily Traffic

a. State Highways

From the above table estimated traffic volume increases on the state highways are expected to increase moderately. No significant changes are proposed excepting continued improvement of the highways with some widening, paving, slight realignments, gradient improvements, improvements in sight distance, easing of curves and the like such as has been done east of Sierra City, and will be done between Indian Valley and Goodyears Bar in the next year or two. At one time the Sierra County Planning Commission thought it might favor a long-range new realignment of Highway 49 over Yuba Pass. However, this southerly alignment and the northerly one which the Division of Highways had tentatively proposed was rejected in favor of keeping the present alignment and spending the money on improvements such as those mentioned above.

The plan shows that Gold Lake Road be absorbed into the state highway system as a scenic highway. Its northerly continuation into Plumas County will join State Highway 89 at Graeagle. At the present time the U.S. Bureau of Public Roads has completed the new realignment of this route in Plumas County including the rough grading. When it is finally finished and paved it will connect the Sierra County and ever popular Lakes Basin Area with the ever growing Graeagle area with its new golf course and the excellent Plumas Eureka State Park. This route might be one means of opening up the higher country in its vicinity for winter snow play and sports activities.



The other proposal pertinent to a new state route is shown on the map as another inclusion in the state system - the present county road from Sattley to Beckwourth.

b. Arterial Roads

A new arterial road is shown on the plan in a general way extending easterly from Calpine to join State Highway 49 and providing a needed cross connection. This route would also serve two other public facilities proposed near its junction with Highway 49 - a new airport and a new county highway maintenance station which would replace the present airport and the two maintenance stations in Sierraville and Loyalton. Another new arterial road would be a needed connection between Highway 49 near Loganville and Henness Pass Road. Henry Dota Road in Sierraville is shown extended to meet the state highway again south of Sattley. These roads are for the primary purpose of serving through traffic between areas, with direct access to abutting property.

c. Collector and Minor Roads

At least six new routes or extensions of existing roads are shown on the plan. The collector roads, in contrast to the arterial or major roads, would collect the traffic from minor roads, culs-de-sac and abutting properties and at the same time providing connections to arterial roads and state highways. In most cases these routes were located with the assistance of the Tahoe National Forest and were located in a very general way. Further review and study of these routes and others will have to be made in the near future.

d. Road Standards

Minimum county road standards were adopted by the county August 2, 1957, and some policies on subdivision roads on June 4, 1962. The standards are those adopted by the County Engineers' Association of California in September, 1953 and follow this page. On October 20, 1969 the Board of Supervisors adopted a policy on snow removal which restricted that function to roads having



at least two inches of asphalt concrete surfacing on a minimum of four inches of base material or as required by the Director of Public Works. The minimum road surfacing is a double chip seal laid down according to state specifications on a minimum four base material. It would seem that in the alpine country the base material could be increased to six inches, and with a minimum of two inches of asphaltic concrete.



Design Feature	Traffic Topography	Unde	r 100 Desirable	100 1	to 400 Desirable		o 1000		to 4000 Desirable	4000 Mini- mum#	to 5000 Desirable		5000 Desirable
Design Speed	Flat Rolling Mountainous	40 30 20	50 30 25	45 35 25	55 45 35	50 40 30	60 50 40	60 50 40	70 60 50	60 50 40	70 60 50	60 50 40	70 60 50
Radii (ft.) (Min. & Desir- able Min.)	Flat Rolling Mountainous	400 275 100	650 400 250	500 350 150	850 525 325	650 400 250	1000 650 400	1000 650 400	1500 1000 650	1000 700 500	1500 1000 650	1000 800 600	1500 1000 700
Grade (%) (Max. & Desir- able Max.)	Flat Rolling Mountainous	7 12 15	4 6 10	7 10 14	5 7 9	6 8 12	5 6 7	4 6 7	3 5 6	3 6 7	3 5 6	3 6 6	2 4 5
Non-Passing Sight Distance (Ft.)	Flat Rolling Mountainous	275 250 125	350 275 200	315 240 165	415 315 240	350 275 200	475 350 275	475 350 275	600 475 350	475 350 275	600 475 350	475 350 275	600 475 350
R/W Width (Ft.)		50	60	60	60	60	80	60	80	80	100	80	100
Roadbed Width (Ft.)		24	28	28	32	30	38	36	40	38	40	64	70
Surface Width (Ft	:.)	20	22	20	22	22	24	22	24	24	26	46	48
Thickness Base &	Surface	1	Design B	sased or	Engine	ering A	nalysis	of Char	acter of	Traffi	c and So	i1	
Bridges Clear Wid	lth (Ft.)	22	26	24	26	26	28	26	28	28	28	48	52
Vertical Clearance	ce (Ft.)	14.5	15	14.5	15	14.5	15	14.5	15	14.5	15	14.5	15
Design Load (A.A.	S.H.O.)	H-15				 #(Max.	 for % Gr	 ade)					

Prepared by County Engineers' Association of California and adopted September 1953.

Adopted by the Sierra County Board of Supervisors, August 2, 1957 by Resolution No. 721.



IV. RECREATION

In California and the nation outdoor recreation use has increased at a faster rate than population growth. With improved economic and social conditions leading to higher standards of living and more liesure time, it will become more feasible for many persons to live and recreate in natural outdoor areas. It is anticipated that earlier retirement and longevity will also create a demand for retirement homes and second homes in the mountainous areas of the state.

Roughly ten years ago recreation projections developed for the California Department of Water Resources indicated that at least a twelve-fold increase in state wide visitor day use of outdoor recreation areas in the state over the next century. Many existing recreation areas in the state are presently overcrowded; and additional areas are needed for development of safe, uncrowded, healthful recreation facilities. The magnificent recreation resources and scenic beauty of Sierra County will attract an ever increasing demand by recreationists from all parts of the state and nation. The County must plan well in advance for this impact on its services and facilities.

In Appendix A of Bulletin No. 58, "Future Population, Economic and Recreation Development of California's Northeastern Counties", published in July, 1957 by the State of California Department of Water Resources, the consultant commented on Sierra County's recreation resources as follows:

"Although small in total gross area Sierra County could devote about one-third of its rugged streams to recreation activities. The Yuba River watershed accounts for the very high potential even though at present access is limited to state highways #49 and #89. The yearly capacity use of camping and resort facilities of the Lakes Basin Recreation Area indicates the desirability of these resources for family camping and sportsman fishing and hunting. The eastern end of the county, being less precipitous forest land and including the southerly portion of Sierra Valley has many recreation streams of



high recreation value, including the little Truckee River.

The Sacramento and San Francisco Bay Metropolitan populations are already placing heavy pressure on these forests because of their proximity to these expanding urban centers. Certainly with proper long range planning, the recreation resources of Sierra County will become the major economic activity."

Review of existing outdoor recreation facilities, recreation use and the recent past trends provide the basis for estimating recreation needs and recreation demand or, preferably, recreation projections.

A. Existing Recreation Facilities, Needs and Requirements

An inventory of park and recreation facilities was conducted in consultation with all public agencies playing a role in park and recreation development in the county. It began with the information obtained when the land use survey was conducted in the summer of 1968; and was concluded roughly a year later with information obtained from the National Forests, California Department of Parks and Recreation, California Department of Water Resources, and the county and City of Loyalton. Throughout this process, the consultant provided the county and the city information, advice and recommended procedures in helping to qualify the county in securing the park and recreation grant of \$75,000 from the State of California.

1. Community Parks

There are no developed community park facilities in the county. The Sierra-Plumas Joint Unified School District, which includes all of Sierra County and that portion of Sierra Valley in Plumas County, provides playground and playfield areas of almost eight acres at the four school sites in the county. The Loyalton Elementary School has two acres; the Loyalton Junior-Senior High School has three acres; the Downieville Elementary-High School has one and one-half acres; the Sierraville Elementary School has a half-acre; and Alleghany Elementary-Junior-Senior High School has about a third of an acre.



The county has a park site in Calpine which is completely undeveloped containing 4.63 acres. The City of Loyalton has an undeveloped site of 6.3 acres about a mile west of the city. By and large the county and its several small communities does not appear to require urban-type parks being situated "within a park" - more or less - the National Forests. The exception is the City of Loyalton which has over 1,000 population and suffers a real deficiency in this regard. If one were to apply the "rule of thumb" standard of one acre of community park for every 100 persons then the county would need at least 24 acres, exclusive of the school play areas.

2. Camp and Picnic

In other outdoor recreation facilities such as picnic, camping, organization camping, resort, motel, trailer parks, hunting clubs, and summer homes the county has a goodly supply. Both public and private picnic-camping facilities are located in forty sites with 596 units (a unit consisting of a table and enough area for fireplace or grill accommodating four to eight persons). Most of these are located on Tahoe N. F. land and managed by the Forest. The estimated reasonable capacity of these areas and units is about 2,800 persons at one time assuming that some sites and units attract larger parties than others, and utilizing data obtained from Tahoe N. F. in estimated use for 1968. The length of recreation season varies from 123 days to 150 days or more per year due to elevation and location. It is estimated that all the picnic-camping sites have an annual visitor-day capacity of slightly over 722,000.

3. Organization Camps

Organization camps such as those for Boy Scouts, Campfire Girls, San Francisco State College, YMCA and similar organizations, are located at eight sites or ten sites, six of which are on Tahoe N. F. land operating under that agency's land use permit procedures and requirements. It is estimated that these sites can accommodate a capacity of 1,725 persons at one time, with a season of 100 days in the year, and an annual visitor-day capacity of 167,500 persons.



4. Resorts, Lodges, etc.

The commercial recreation facilities such as resorts, lodges, motels, hotels, trailer courts, and hunting clubs total forty in number in Sierra County. These resort sites have an estimated 518 units with a capacity of 2,036 persons at one time. The recreation season varies from 60 days to year-long depending upon the type, location and elevation. It is estimated that the annual visitor-day capacity is about 472,750.

5. Winter Sports

The only winter sport facility is located on Tahoe N. F. land at Yuba Pass with a lift and capacity of 120 persons; a season of 120 days; a theoretical seasonal capacity of 14,400 visitor days.

6. Summer Houses

Summer homes in the county are estimated at 622, with a capacity of 2,760 persons at one time; a season of 180 days; an annual visitor day capacity of 496,620. Tahoe N. F. has 122 summer homes, and of this total, 27 are scattered in the forest, while the balance are located at five designated tract areas.

The above facilities total 708 sites; with 2,196 units; 9,407 capacity persons at one time; and 1,877,300 visitor day annual capacity. These facilities are extremely important because they house the recreationists who visit the county; and they provide the only reasonable means by which recreation use can be measured as well as provide the basis for estimating other recreation use.

7. Swimming

There are only a few swimming beaches as such in the county - Gold Lake, Sand Pond, and Jackson Meadow Reservoir, Weber Lake, with a capacity of about 800 persons. On the Nevada County side of Jackson Meadow Reservoir there is another beach managed by Tahoe N. F. with a capacity of 100 persons. Of course, swimming occurs along the rivers and streams and on the other lakes and ponds as well.



8. Boating

There is a two lane boat launching ramp operated by Tahoe N. F. at Pass Creek on Jackson Meadow Reservoir which can park fifty cars and trailers. There is another ramp on the Nevada County side of Jackson Meadow Reservoir. Of course, rental boats are available at many locations, and boats are launched at other spots even though improved ramps may be lacking; and many small boats are "hand" launched.

B. Recreation Use, Demand and Projections

1. Recreation Use

There is insufficient information far enough back in time which might serve as a platform for trends and extension of trend lines thrity years or more into the future so that reasonably accurate estimates of recreation demand or, preferably, recreation use projections could be made. The only historical data on recreation use and activity in Sierra County is that which the National Forests of Tahoe, Plumas and Toiyabe have collected based upon some sampling, actual count, observation, and judgement. The Tahoe N. F., of the national forests in the county, has the dominant role with practically all of the facilities and use. Recreation statistics for Tahoe N. F. as a whole show that the total number of recreation visits increased 350 per cent in seven years from 1958 through 1964. Recreation visitor days increased 152 per cent for the same period. Recreation visits and visitor days in 1964 were 1,452,700 and 1,886,100 respectively in all of Tahoe N. F. The average duration of stay was 1.3 days. It is estimated that Sierra County's share of the recreation visits and visitor day use in 1964 was about twenty per cent of the forest's total or 377,220 visitor days, with longer duration of stay of about twice that of the average for the forest leading to 145,000 visits.

There is no reliable historical data concerning the recreation use and recreation visits on private land and for privately owned facilities. Undoubtedly, there was and is additional recreation use for these private lands and facilities, but it can only be guessed at.



Beginning in 1965 a federal executive policy governing the reporting of recreation use of federal recreation areas was instituted affecting the national forests and all other federal agencies. In this new procedure one significant change was the change of a visitor day from 7-24 hours of recreation use by one user or several users whose activities or activity aggregates these amounts to a visitor day of 12 visitor-hours which may be aggregated continuously, intermittently, or simultaneously by one or more persons. This change, though in the best interests of all federal agencies because it now standardized data collection and estimated data by political units such as a county, is not compatible with data collection methods used by state and other recreation agencies and private consultants.

However, the recreation use information for the past three years for all forests in Sierra County from 1965 through 1968 showed that recreation use increased from 710,500 visitor days in 1965 to 743,700 in 1966 to 953,300 in 1967, and to 1,000,700 in 1968. The total recreation visitor day use for all land and facilities, public and private, for 1968 is estimated at 1,587,500 of which 496,800 is attributable to private facilities and private lands, or 31.3 per cent of the total. The estimated recreation use for Sierra County in 1968 attributable to improved facilities is 957,630 - 550,300 visitor days in forest service facilities or 57.5 per cent of the total. All the improved facilities were utilized in 1968 to 51 per cent of their annual visitor day capacity - 957,630 visitor days out of a capacity of 1,877,315. The forest service improved facilities were utilized to 56.6 per cent of their capacity of 971,825 visitor days per year. The improved facilities being those for camping, picnicking, organization camps, resorts, lodges, motels, hotels, trailer parks, winter sports, and summer homes.

2. Recreation Demand and Projections

Tahoe N. F. has projected recreation use on their lands and facilities in Sierra County for the year 2000 to be 2,800,000 visitor days based on the counting system used prior to 1965. This is equivalent to 4,200,000 v/d using the present system of 12 visitor hours equals one v/d.



The California Department of Parks and Recreation has made a preliminary estimate of recreation projections for the state for the year 2020 to serve an estimated population of 54,000,000. They project total demand as 3,026,000,000 visitor days - 1,621,936,000 for urban use and 1,404,064,000 v/d for non-urban use. Of the state total 26,828,900 v/d is projected for Sierra County in the year 2020 - 24,146,000 v/d for overnight use and 2,682 for day use. For the year 1990 the state has projected recreation demand for Sierra County as 6,922,200 v/d total, of which 6,230,000 would be overnight and 692,000 would be day use. By interpolation it would appear that the state might project the Sierra County recreation use for the year 2000 about 10,200,000 v/d total - 9,180,000 overnight and 1,020,000 day use.

Although it is possible that by the year 2000 Sierra County could generate an annual visitor day use of 10 million, the consultant is inclined to feel that 6 - 7 million v/d is more reasonable for both public and private use. Of this total about 6 million would be overnight use.

C. Recreation Plan

The park and recreation plan is shown on the map entitled "RECREATION PLAN - 2000" which follows. On the plan is included existing and proposed public recreation facilities. This plan was developed through consultation with all national forests and other public agencies to include those public facilities anticipated would be available by the year 2000.

Community parks are shown at three locations - one at Loyalton which would contain ten acres adjacent to the school sites, one in Sierraville which should have five acres to begin with, and one in Calpine whereby the present site would be improved and developed. The City of Loyalton was authorized by the Sierra County Board of Supervisors on July 22, 1969 to apply for the \$75,000 park and recreation grant from the California Department of Parks and Recreation. The application for the grant was filed with the state August 27, 1969 by the City of Loyalton.



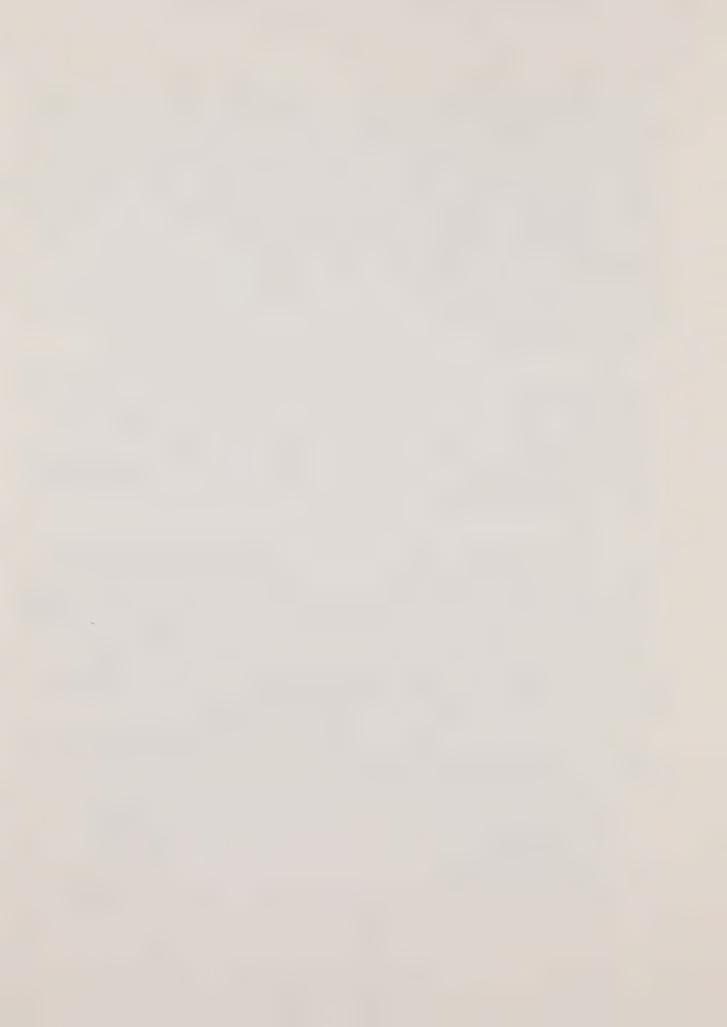
It is estimated that development costs for the Loyalton community park would range from \$75,000 to \$160,000 depending upon whether a pool could be included and financed. This site has a distinct advantage because it can be designed and developed with both school sites in mind and, with the cooperation of the school district, savings in development costs may be realized. It is recommended that an additional ten acres be acquired several years from now to enlarge the park to twenty acres, or more. However, this decision is contingent upon any additional population growth on the City of Loyalton and the surrounding area to be served by the park. The proposed five acre park in Sierraville is also one which may be enlarged to ten acres or more also depending upon population growth in the future and area to be served.

Development costs for the Sierraville community park should run from \$40,000 to \$90,000 depending upon the facilities to be included, particularly a pool. The community park at Calpine is estimated would be developed at a cost of \$25,000 and more depending upon the facilities to be included. All the community parks proposed can be more adequately treated when the detailed community plans and zoning plans are prepared next year.

Camp and picnic facilities shown on the plan include, in addition to the 34 sites present today, 68 new sites - 60 to be developed by Tahoe N. F.; seven by Toiyabe N. F.; and one by Plumas N. F. which would have initially 35 family camping units. Toiyabe N. F. would have an additional 214 family camp units or a total of 261 units including today's facilities. As can be seen the bulk of the proposed development would take place in Tahoe N. F. depending upon actual needs and congressional appropriations, etc.

Tahoe N. F. planned the following recreation facilities in addition to present facilities to meet the anticipated demand:

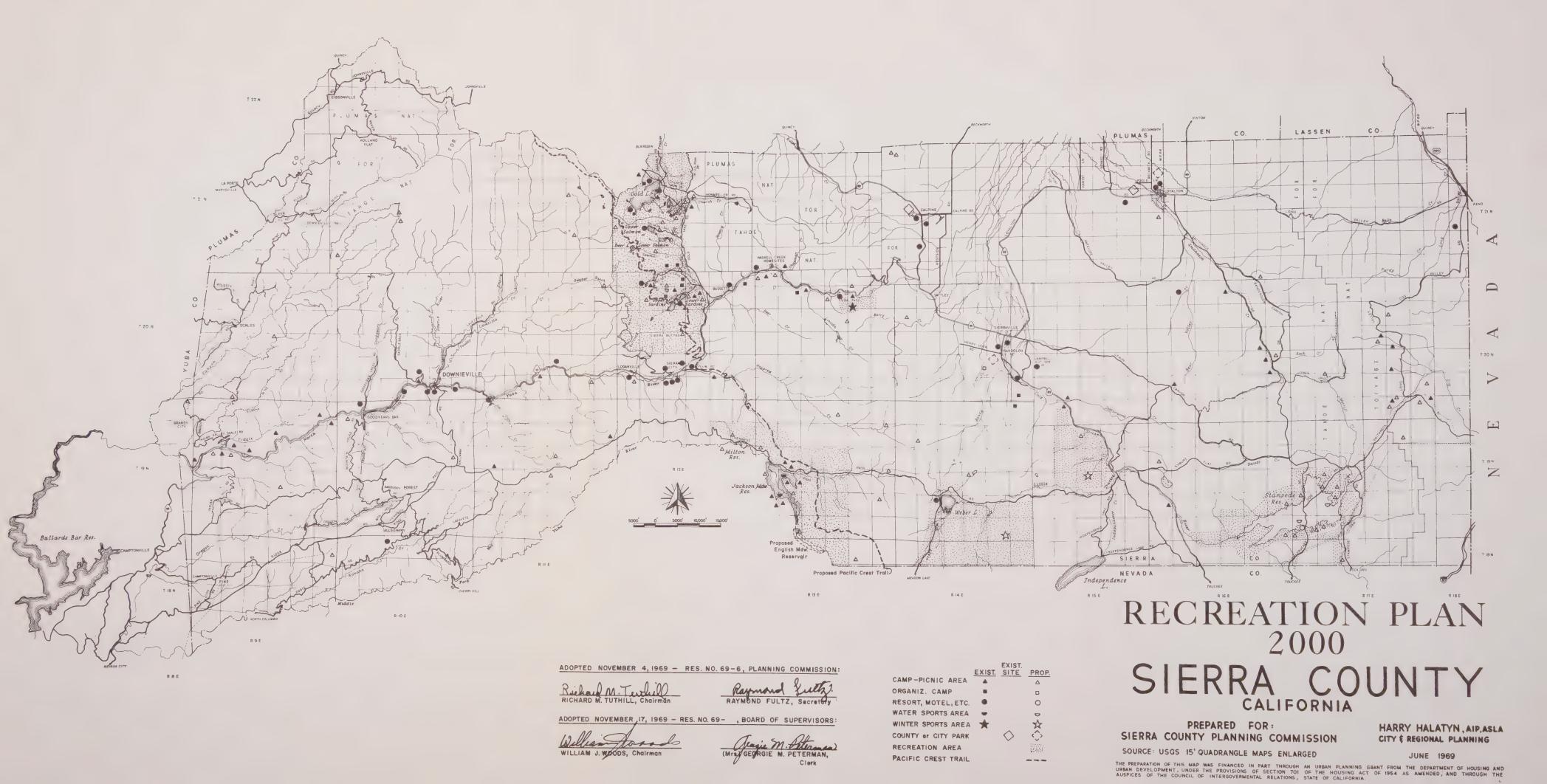
Family Camping units	3,370
Group Camp units	28
Family Picnic units	312
Group Picnic units	. 12
Swimming Areas - 4 sites - capacity	920 persons



Boating - 4 sites - 10 launching lanes - cap.	500	cars
Vista Points - 3 sites - capacity	75	persons
Organization Camps - 10 - capacity	1,300	persons
Winter Sports - 2 sites - capacity	2,500	persons

Of course, in addition to the above other required facilities will have to be developed such as trails, roads, water systems, etc. The plan shows the general location of the Pacific Crest Trail which is a part of the National Trails System adopted by the 90th Congress October 2, 1968 under public law 90-543. Only one resort site is shown on the plan at Stampede Reservoir, and this site is tenuous. Only one organization camp site is shown on the plan although ten are projected. These types of facilities are questionable and very difficult to estimate. There appears to be adequate land for these facilities and more to meet the public and private demand anticipated.







V. HOUSING

A. State and Federal Requirements

In 1967 the California Legislature enacted a law which now adds, as a mandatory part of the general plan, a housing element. In addition to the land use and circulation elements, Section 65302 of the Government Code also requires by July 1, 1969, "a housing element consisting of standards and plans for the improvement of housing and for provision of adequate sites for housing. This element of the plan shall endeavor to make adequate provision for the housing needs of all economic segments of the community."

In 1968 the 90th Congress enacted Public Law 90-448, the "Housing and Urban Development Act of 1968". This new law amended, among other sections, Section 701 of the housing Act of 1954 which now requires a housing element, ... "Planning carried out with assistance under this section shall also include a housing element as part of the preparation of comprehensive land use plans, and this consideration of the housing needs and land use requirements for housing in each comprehensive plan shall take into account all available evidence of the assumptions and statistical bases upon which the projection of zoning, community facilities, and population growth is based, so that the housing needs of both the region and the local communities studied in the planning will be adequately covered in terms of existing and prospective inmigrant population growth."

Subsequent to these legislative actions the appropriate state and federal agencies drafted policy statements and guidelines governing the preparation of a housing element and its content.

B. AIP Policy Statement

In addition, the Executive Board of the California Chapter of the American Institute of Planners adopted a policy statement or position paper on the housing element of the general plan.

On October 5, 1968, the Executive Board of the California Chapter of AIP recommended to the state and federal agencies a two-stage approach to the



development of "recommended guidelines" for the definition and evaluation of housing elements, as follows:

- Stage 1: Effective July 1, 1969, an acceptable housing element should consist of:
 - 1. A general identification of housing problems and a preliminary statement of community housing goals.
 - 2. An indication of probable solutions to the identified problems.
 - 3. An acceptable work program for the preparation of a complete housing plan. An acceptable program would be one meeting the criteria of stage 2 below.
 - 4. Evidence of coordination with regional agencies, housing authorities, citizens groups, and producers.
- Stage 2: An acceptable housing element (as called for in step 3 of stage 1) should consist of at least:
 - 1. A statement of goals directed toward encouraging the development of a pleasant housing environment for all economic segments of the community through appropriate educational, informational, and regulatory programming in accordance with the desires and the ability of the community.
 - 2. A housing market analysis consisting of:
 - a) an inventory of existing stock
 - b) an estimation of expected needs
 - c) an analysis of present and anticipated deficiencies
 This component should be designed to bring before the community
 the anticipated housing requirements, the anticipated housing supply,
 and the quantitative and qualitative gaps.
 - 3. Identification of those impediments which prevent the requirements from being fulfilled. This component should consist of an analysis of consumer, producer, financer, and regulator needs, limitations and characteristics.
 - 4. The establishment of programmed long-range quantitative and qualitative targets for housing construction, rehabilitation, and conservation. The responsibility of each of the many agents in both the



public and private sectors should be defined.

5. A legislative commitment to a detailed, specific program of action to meet the established targets.

This AIP stage 1 - stage 2 program will allow the opportunity to take advantage of new information to be generated by the 1970 census. The additional time allowed by this approach will also permit effective citizen involvement in planning for housing, and will allow the time necessary for a coordinated market area-wide solution to housing problems. These suggested guidelines should allow sufficient flexibility to permit widely varying approaches to the housing problems of different communities. In addition, this framework itself should be considered relatively flexible, and should permit modification to fit into each community's planning process.

C. State Policy

The state has indicated, through its Department of Housing and Community

Development, that the two major goals of the housing element as viewed by it

are:

An honest appraisal of community housing needs

A commitment, through the establishment of realistic goals,
to provide adequate housing to meet the needs of the community

In November, 1968 the State of California issued a policy regarding the housing element requirement as follows:

Effective July 1, 1969, no local general plan will be considered to be in conformance with state law unless it contains a housing element.

- 1. An identification of housing problems and a preliminary statement of community housing goals.
- 2. An indication of probable solutions to the identified problems.
- 3. A detailed work program for preparation of a complete housing plan for all economic segments of the community, in accordance with the desires and needs of the community.
- 4. Evidence of coordination with established regional agencies, housing authorities, citizen groups, and producers.



As stated further in the policy statement, the state intentionally adopted a broad policy; and that guidelines must be flexible and broad because California communities have widely varying problems, requirements, and characteristics.

D. Federal Policy

In December, 1968, the U.S. Department of Housing and Urban Development issued its requirements and guidelines on the preparation and content of a housing element. In typical form HUD developed a multi-page description of requirements and guidelines which follow.

1. Preparation of a Housing Element (HUD Requirement)

- a. All applicants for Comprehensive Planning Assistance must prepare a housing element as a part of their continuing planning program. As a first step, all applicants must have completed an initial housing element by September 30, 1969.
- b. Applications for Comprehensive Planning Assistance (including amendments to current grants) received after September 30, 1969, will not be processed unless a completed initial housing element is appended to the application.
- c. Exception: Planning Agencies applying for the first time after April 1, 1969 will be given six months from the date of their first grant approval to complete an initial housing element.

2. Characteristics of an Initial Housing Element (HUD Requirement)

An initial housing element must consist of a statement of:

- 1) Housing and housing related problems, including those of low income and minority groups.
- 2) Obstacles to the solution of housing problems and housing-related problems.
- 3) Annual housing objectives tailored to the needs of the planning jurisdiction.
- 4) Previous and future housing planning activities.
- 5) Previous and future governmental actions to implement housing plans.

Appendix 2-A, "Initial Housing Element", of HUD provides further details on the required components of housing elements.



From a review of the above it is fair to state that, in general, both the state and federal requirements and guidelines lead toward the same goal - an effective, workable and active housing plan and program - although those of HUD are more explicit. Also, HUD strongly urges that every planning agency do more than the required initial housing element.

This report was developed keeping in mind the requirements and guidelines of the state and federal agencies and the California Chapter of the American Institute of Planners.

E. Housing Plan

Work started on the program with the Planning Commission appointing a citizens housing committee with the approval of the Board of Supervisors. The Citizens Housing Committee consisted of representative members of the community having an interest in housing and knowledge of housing and housing problems in the county. The committee held several meetings with the planning consultant and reviewed the requirements for a housing element and helped to develop the housing element report.

In its examination of county housing problems and related community planning problems the committee and the consultant kept the Planning Commission and the Board of Supervisors advised on the proceedings; and both the Commission and the Board were requested to participate as much as possible so that a meaningful housing element of the general plan would result. The housing plan follows.

1. Housing Problems

In reviewing the housing problems in Sierra County it became apparent that full knowledge could not be obtained until more up to date information became available. The 1960 census showed that out of a total of 1,460 housing units in the county 129 units or almost 9% were found to be dilapidated, and 346 units or 24% were deteriorated. Almost one-half of all the housing units (646) had been built 30 years or more (by the year 1929 or earlier). A statement of



the housing problems in Sierra County today include the following:

- a. Housing generally unfit for acceptable living with substandard sanitation and in dilapidated, deteriorated or run-down condition.
- b. There is a shortage of rental units and acceptable homes to buy. The rental shortage affects the young families and older persons.
- c. Shortage of housing for families in the low income brackets, which prevail in greater percentage in Sierra County.
- d. Inadequate water supply systems in the smaller communities.
- e. The remoteness of the county discourages building contractors and results in increase in building costs.
- f. A minority problem exists for those who pay very little or no rent.
- g. Inadequate public facilities.
- h. Shortage of available land for building.
- i. A large percentage of housing built prior to the year 1940.
- j. Houses are rented because they are sub-standard and can't be sold.
- k. Low income levels of a great proportion of the people in the county.

2. Housing Obstacles

A preliminary listing of obstacles to the solution of housing and housing-related problems include the following:

- a. Inadequate information about the supply and demand for housing.
- b. Inadequate information about the present condition of housing.
- c. Inadequate planning funds for housing.
- d. High construction costs for housing.
- e. Inadequate local resources for financing housing.



- f. Restrictive residential mortgage and insurance practices.
- g. County has a limited tax base and lacks the means to improve public facilities.
- h. Overly restrictive eligibility requirements for housing aid.

3. Housing Objectives

A preliminary presentation of housing and housing-related objectives covering a period of three to five years is as follows:

- a. Secure data on the condition of housing, and information on the supply and demand for housing.
- b. Prepare precise community plans which are closely coordinated with a commercial and industrial development plan.
- c. Prepare a county housing plan with recommended actions for responsible agencies. This might be one comprehensive plan or several components for (a) housing sites; (b) financing;
 - (c) replacement and maintenance of existing housing stock; or
 - (d) improving public utilities and facilities.
- d. Each year make a review and reappraise the housing situation, and continue with action programs toward housing solutions. Under this program the housing needs in Sierra County will be improved as much as is feasible.

4. Planning Activities

Previous planning activities, related to housing, undertaken by the County of Sierra during the preceding year includes the beginning of work toward a comprehensive general plan for the county which is expected to be completed near the end of the year. Future planning activities, related to housing, to be undertaken over the next three to five years are as follows:

- a. Completion and adoption of General Plan.
- b. Preparation of county-wide water and sewer plan.
- c. Conduct a special census which will include questions on housing condition, rental ranges and ownership and employment and income. Work on this item shall begin in July, 1969 and is estimated to cost \$3,000; and it should be completed within several months.



- d. Prepare accurate base maps for precise plans and zoning for several communities in the county; using photogrammatic methods, these maps will serve toward other development problem solution including housing, utilities and public facilities. A county-wide zoning map, ordinance and administrative and enforcement procedures will be included. This work should be completed within a year beginning in 1970; and is estimated will cost \$26,000.
- e. Along with the above zoning program, prepare a detailed work program design for housing to be completed in 1970-71, which is estimated will cost at least \$6,000.
- f. Survey all available federal, state and local housing tools including legislation, programs and financing.
- g. Make more detailed surveys of sub-standard housing as required in order to determine what actions for remedy may be taken.
- h. Investigate the possibility of urban renewal programs.
- i. Prepare an investigation of the need for a housing authority.

5. Implementing Actions

Previous implementing actions taken during last year to ameliorate housing problems consisted only of the indirect action whereby work was begun on a general plan program for Sierra County. Future implementing actions to be taken over the next three to five years may include the following:

- a. Enact a housing ordinance.
- b. Create a housing authority.
- c. Adopt zoning, land use, subdivision and hillside development standards and controls; and building code enforcement techniques.

6. Annual Performance and Updating of the Housing Element

The County of Sierra will embark upon a continuous planning program and will require planning assistance in the future. Therefore, it is anticipated that the planning program accomplishments and housing element accomplishments will be reviewed annually to determine precisely what revisions or additions to the



programs may be needed. It seems logical at this point (after the housing element has been in effect for a year or two) to concentrate on those real action programs, public and private, which can directly aid in providing good housing for all income levels. Naturally, with changing times and conditions, it may be necessary to refine and update our evaluation of housing problems, obstacles, objectives, planning activities, and implementing actions previously described. Hopefully, the next three to five years may see new legislation and financing in this field.

7. Coordination of the Housing Element with the Total Agency Program

The County of Sierra would hope that in its total planning program, which will include ways and means to broaden the tax base and improve the economy of the county, partial solutions to housing problems may be found in indirect actions such as raising incomes, improving transportation, changing tax policies, changing federal and state policies related to the economy, and other activities, as well as planning and programming for the construction of housing.

8. Coordination of the Housing Element with Existing Housing Work

The housing element will take into account and build upon existing and future planning efforts such as the county may be engaged in, including those federal programs the county may elect to utilize.

9. Inter-Planning Agency Coordination

At the present time Sierra County is not a part of regional council or district; and therefore will coordinate its activities with the appropriate state agencies, including the State Office of Planning, Council on Intergovernmental Relations, and Housing and Community Development.

10. Endorsement by Local Officials

This housing element will be endorsed by the Sierra County Planning Commission and Board of Supervisors. As a part of the General Plan it will be adopted after public hearings are held on the General Plan are held as required by law. In the future those authorities and officials responsible for county housing policy and implementation will be required to endorse the housing element.



VI. PUBLIC FACILITIES

Public facilities and services in Sierra County are provided in various ways through a combination of units of government and privately owned "public" utilities. Excluding recreation facilities which is covered separately in the report, there are 34 agencies providing facilities and services in the county. Of this total three are privately owned "public" utilities, four are governmental units - the County of Sierra, the City of Loyalton, the State of California, and the Federal government (particularly the Forest Service). All the rest are either county-wide districts or smaller special districts. Descriptions of the public facilities and services follow. The map PUBLIC FACILITIES follows at the end of this section following page 102.

A. Schools

All of Sierra County is part of the Sierra-Plumas Joint Unified School District - the eastern end of Plumas County being a part of this 1,600 square-mile district. Since the district is unified county-wide, the district governing board functions also as the county board of education; and the offices of the district and county superintendent of schools are combined. The total school enrollment early in 1969 was 750; and the staff consisted of 42 full-time teachers, 11 substitute teachers, and four administrative personnel - thus constituting six per cent of the estimated labor force of 900 in the county.

The district operates seven schools in Sierra County; and transportation to and from the schools is provided with nine buses which are owned and operated by two private companies. In some cases transportation is provided by parents who are reimbursed at the rate of twelve cents per mile. Of the buses, two are in Downieville, one is at Sierraville, and the balance are in Loyalton.

In the western part of the district at Alleghany is a kindergarten through sixth grade (K-6) elementary school and a junior-senior high school in a wood frame building constructed in 1937 on a 1/2 acre site. This school is adequate at the present time with a capacity of from 40 to 50 students. Tentative replacement date for this building is 1977. At Downieville there is a K-8 elementary school and a four-year high school in a wood frame building constructed in 1954, which is tentatively scheduled for replacement in the year 2005. In addition to the school building is a gymnasium constructed of wood



frame and crimped galvanized steel in 1939 and to be replaced in 1980. The site has a gross area of four acres with room for expansion amounting to 1/2 acre as needed for about two additional classrooms.

In the eastern part of the district at Sierraville is a 1-6 elementary school in a wood frame and stucco building constructed in 1931, and which may be replaced in 1990. The gross area of the site is two acres. The school is practically filled to capacity which is from 60 to 75 students.

In Loyalton there are three school buildings. The oldest of these is the frame structure now used for grades K-3. It is expected that this building will be phased out of the system in several years. The new Loyalton elementary school was constructed in 1967 on an 8.4 acre site on the north side of town. Adjacent to it is the four-year high school which was constructed in 1960 on a 17 acre site. Both of these newer schools are the only ones reasonably approaching the site standards established by the state. In addition, both of the new school sites can add school rooms; and they have the necessary playfield areas. Any park and recreation facility serving the Loyalton area would be best located adjacent to these two school sites.

The enrollment and number of teachers at each of the schools early in 1969 was as follows:

	Enrollment	No. of Teachers
Alleghany Elementary	10	1
Downieville Elementary	60	3
Loyalton Elementary	375	13
Sierraville Elementary	60	3
Alleghany JrSr. High	25	3
Downieville High	35	5
Loyalton High	185	13
E.M.R. Class	10	1
(Operated by County Super-		
intendent of Schools)		
Totals	760	42



In addition to the above enrollment in the district there were 21 children living in the Verdi area (19 elementary, 2 secondary) who go to the schools in adjacent Washoe County, Nevada.

The average daily attendance in the district has been increasing slowly in the last ten years as follows:

			Totals				
	Grad	de Lev	e 1	Sierra Co.	Plumas Co.		
Year	Elementary	<u>Jr. High</u>	High School	Residents	Residents	Total	
1968-69	482	2	229	582	131	713	
1967-68	457	21	215	559	134	693	
1966-67	385	120	229	599	135	734	
1965-66	400	130	227	622	134	75 7	
1964-65	406	111	199	597	119	716	
1963-64	408	89	182	569	110	679	
1962-63	405	73	168	551	95	646	
1961-62	456	72	148	515	61	576	
1960-61	361	67	160	520	68	588	
1959-60	371	55	148	521	53	574	

It appears that the present school system in Sierra County and in the school district is adequate to serve the needs of the entire community. However, depending upon the rate of growth in the county and the district and, particularly in some areas of the county where greater growth may occur, some shifts in the school age population may occur. One of these areas may be at Verdi where an increase in younger-age families with school children may take place. However, future economic conditions will be the controlling feature in this area as well as in the State of Nevada and in other areas in the county influencing shifts in the school age population. The planning process in this regard, will be carefully followed in the future years with observation and re-analysis.

B. Libraries

The county library system is operated under the Plumas County Librarian under an annual budget of \$3,000. There are five "branch" libraries located in Downieville, Alleghany, Sierra City, Sierraville, and Loyalton. With the exception of Loyalton's library they are located in a portion of a residence with the cooperation of and a small remuneration to the resident of the dwelling.



The system seems to be reasonable and workable. Any future improvement to the system would appear to be in the form of a greater number of books which may lead to certain changes or shifts in financial considerations and the need for more space or buildings.

C. Hospital

There is only one hospital in Sierra County located in the City of Loyalton. It was opened in 1952 and serves basically the Sierra Valley Hospital District which was formed September 3, 1946, as well as other persons requiring hospital aid. It is located on a one to two acre site and has a total of ten hospital beds - two o.b. and eight general. It has been thought by the district staff that modernization of the hospital is required and that there should be at least twelve active general beds; and that a new addition should be constructed for up to ten nursing beds as well. The district has obtained about 3.7 acres north of the hospital for future expansion as needed. There are 24 persons on the hospital staff; some of these are part-time and some full-time. The hospital district has a basic tax rate of 20¢ per every \$100 of assessed valuation.

A County health clinic is conducted once a month in the County Health Department building in Downieville - from 10 a.m. to noon during the school year. With only two doctors in the County in Loyalton, it has been their practice for one of them to be available every Friday at the County Health Department providing privately paid medical assistance to those persons in that part of the county as needed.

A proposal for a full time emergency medical facility to be located in Downieville was proposed by the Board of Directors of Sierra-Nevada Hospital based in Grass Valley, to the Board of Supervisors of Sierra County, as a part of that hospital's function to provide whatever medical assistance it could to its service area which include the western portion of Sierra County up to Yuba Summit. In this proposal, the County would provide space in the County Health Department building, and the hospital would provide a nurse and limited emergency medical treatment. This proposal has been discussed and no final decision reached at the time of writing this report.



It seems that the eastern part of the county is reasonably served by medical and hospital facilities in Loyalton, with speedy access to other facilities and help as required in Reno, practically all year long. Some persons may also find it possible to go to the hospital in Portola. However, the western part of the county east of Yuba Summit (especially in Winter) does not have comparable facilities and is more within the time-distance zone of Nevada City - Grass Valley. This lack is definitely a restraint on that part of the county to develop anticipated retirement and second home areas.

The county sanitarian, who also serves eastern Nevada County, normally makes his services available to the county in Downieville on Tuesdays, and in Loyalton on Thursdays. His main office is in the Nevada County building in Truckee.

D. County Courthouse - Administrative Center

With the County Seat in Downieville the County Courthouse and building for the County Health Department, plus the building for the Department of Public Works - are located on the left bank of the North Fork of the Yuba River. The Courthouse and the Department of Public Works building are on the west side of Nevada Street on a parcel over an acre in area. The Health Department building is directly across the street on the east side of Nevada Street on a parcel less than a half-acre. The Courthouse contains the typical administrative and judicial offices, plus the sheriff's department with jails, and the County and District school offices, of four staff persons.

At the present time there seems to be enough space for the County's sixty employees and the appointive and elective officials. The Courthouse was constructed in 1952-53 and seems to be adequate for today's needs, and for the foreseeable future - the next twenty to thirty years. However, if more administrative personnel and police personnel are required in the future, certain shifts can be made after detailed study of space requirements. This type of review would be most pertinent in the next two to three years when work is initiated on programming capital improvement projects and analyzing program planning budget systems.



E. Public Safety - Sheriff

The Sheriff's office provides the only police protection in the county with only some ancillary protection from the State Highway Patrol. In addition to the Sheriff there are six full-time deputies and one half-time deputy. The Sheriff provides police protection to the City of Loyalton for which the city pays \$1,800 per year and provides space estimated to have a value of \$4,000 per year. The Sheriff has estimated that the cost of Loyalton's police protection is on the order of \$22,000 per year. The space in the Courthouse for the Sheriff's office is adequate at the present time according to the Sheriff including the six detention cells. More space could be added, but it is adequate for the next fifteen years. Naturally, the peak Summer vacation season presents the greatest problems with an estimated 35,000 to 40,000 people in the county on peak weekends; and the problem is growing as each year goes by. Outside of some increase in staff, the other problems are that of communications improvement and communications repeater station improvement where power lines are used.

F. Public Safety - Fire Protection

For most of the County, because it is in National Forests, fire protection and suppression is the responsibility of the National Forest and, in most of the area, by Tahoe National Forest through its equipment at the ranger stations at Camptonville, Downieville and Sierraville. These ranger stations also pitch in to help suppress fires in areas other than within their jurisdiction. The various communities provide their own fire protection in one form or another - the City of Loyalton has its own tax supported fire department; Alleghany has a citizens supported Fire Club and fire department; the balance of the county is served by fire districts - Downieville, Sierra City, and Sierra No. 1 covering Sierraville, Sattley and Calpine with fire equipment located at each of these three towns. A further description of these fire districts and department follows.

1. City of Loyalton

The City of Loyalton, with its limited basic tax of \$1.00 for each \$100 of



assessed valuation has a fire department with a fire chief and 18 volunteer firemen - all are covered by State Compensation Insurance. The equipment consists of a 1967 Ford pumper tanker holding 2,500 gallons of water and capable of delivering 500 gpm (gallons per minute); an additional 500 gpm pumper; and a tank truck holding 1,800 gallons for brush fires. The department has a mutual aid agreement with Fire District Sierra No. 1; and an agreement with the U.S. Forest Service to help it only during the fire season. With a good water supply and reasonable delivery of water, the only complaint seems to be the inadequacy of the fire hydrants which are two-inch standpipes.

2. Sierra No. 1

With a tax rate of 35¢ Sierra No. 1 fire district is a large district serving Sierraville, Sattley, and Calpine. It has 20 insured volunteers - 10 at Sierraville, 5 each at Sattley and Calpine. There are 70 uninsured volunteers available at call. In the Sierraville station there is a new 1,000 gpm pumper, and a 1948 500 gpm pumper. At the Sattley station is a 1947 350 gpm pumper for brush fires, and a 1948 Chevrolet 500 gpm pumper. In Calpine there is a new 500 gpm pumper, and a La France fire truck with a new engine and pump delivering 500 gpm.

The district has a number 7 fire protection rating. Adequate water supply systems and hydrants are available in Sierraville and Calpine; with a 14-station gamewell miniature fire alarm system in Sierraville, and a 9-station fire alarm system in Calpine.

3. Sierra City

With a tax rate of 75¢ the Sierra City Fire District has a ten-man insured volunteer fire department including the chief. Its equipment consists of a 20-30 year-old pumper which can deliver 250-500 gpm; a homemade 500 to 800 gallon tank truck which delivers an undetermined number of gallons per minute with its pump; and a hose truck with two marine pumps. The present fire house which can house one truck is expected to be replaced in the future with a new fire house across the street. The district has its own water system for



fighting fires with very high pressure in the main delivery pipe which is twelve inch steel. In the community there seems to be the suspicion that various people have tapped into the system. The water system in Sierra City is covered in the section on water utilities further along in the report. There are 21 hydrants of 2 1/2 inch size. See the map of the water system which follows this page.

4. Downieville

The Downieville Fire District with its tax rate of 50¢ has eleven insured volunteer firemen. The equipment consists of an army 6 x 6 truck with a 1,300 gallon tank and 500 gpm pump; a Dodge 4 x 4 truck with a 250 gallon tank and 300 gpm pump; and an old 1936 Chevrolet 250 gpm pumper. The water system in town will be replaced, but the present system has fire hydrants which belong to the fire department and not the public utility district which owns and operates the water system.

5. Alleghany

Alleghany has a volunteer fire department and has no public district or legally formalized structure. The service area fund with a tax rate of $50 \, \text{¢}$ appropriates up to \$2,000 per year, as needed, for the cost of fire protection. The firemen are uninsured volunteers - 20 in number. They use two pumps, each of which is a 6 x 6 army truck with 1,000 tank and pump delivering 500 gpm. There are about eight fire hydrants which are two-inch standard tied to an adequate water system.

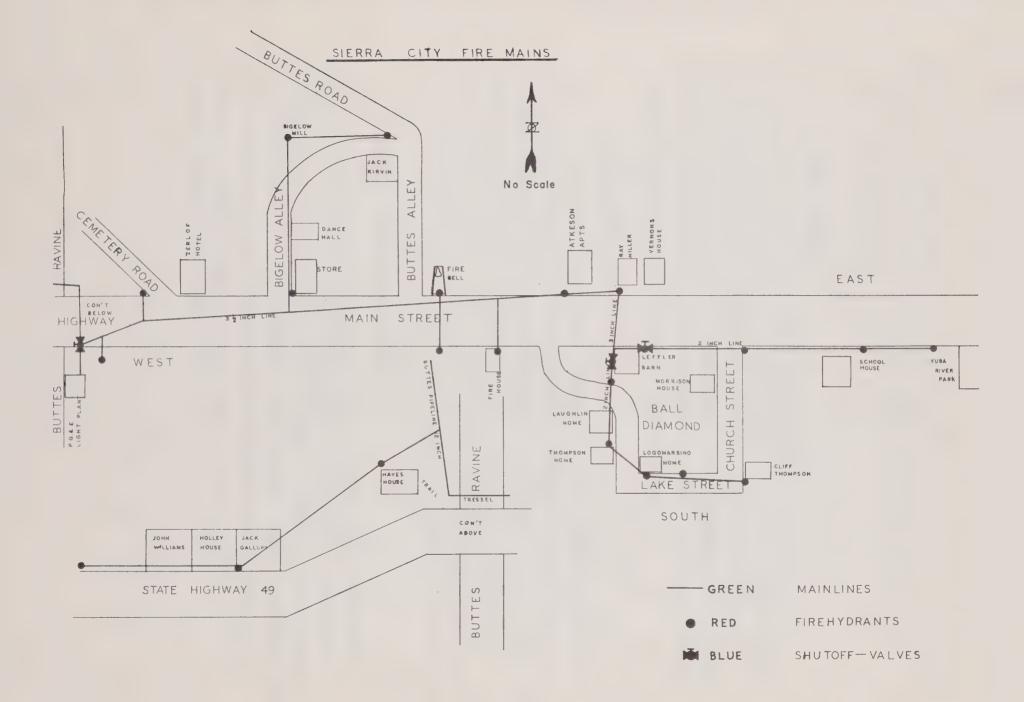
G. Cemeteries

There may be as many as fourteen or more cemeteries in the county - most of which were created some years ago and are not used today. The county, at the present time, has three cemetery districts which levy varying tax rates:

Cemetery District No. 2 covers the Alleghany area and has a tax rate of 10¢;

Cemetery District No. 3 has a tax rate of 3¢ and covers the community areas of Goodyear Bar, Downieville, and Sierra City; Cemetery District No. 5 has a







tax rate of 7¢ and covers the areas of Sierraville, Sattley, and Calpine. The City of Loyalton has its own cemetery (Mountain View) on the south edge of town, outside the city limits. Some consideration has been given to the establishment of a district.

H. Highway Lighting

There are three public highway lighting districts which are still on the books but which apparently are not very active. These are: Calpine Public Highway Lighting District, Downieville P.H.L.D., and Sierra City P.H.L.D. Apparently these districts, along with other highway lighting, is maintained now through the five service areas which levy tax rates for highway lighting, cemeteries, and other services, and are described below.

I. County Service Areas

There are five county service areas identical with the boundaries of the five supervisorial districts; and each area with a different tax rate commensurate with the needs and services required and provided in the area. Each Supervisor budgets for these services which may include construction and maintenance of roads, ambulance service, street lighting, fire protection, garbage dump, refuse collection, snow removal, among a host of services and capital improvements desired by residents in the service area and for which they may be taxed.

J. County Road Maintenance Yards

There are four county road maintenance yards - at Alleghany, Goodyear Bar, Sierraville, and Loyalton. These indispensible county facilities appear to be adequate for the time being and well located in reference to the functions they perform. In the distant future, by the year 2000, and in connection with the construction of a new road from Calpine almost due east joining State Highway 49, a new yard should be constructed on this new highway. This new facility would then replace the two in Sierraville and Loyalton.



K. State Highway Maintenance Stations

There are two state highway maintenance stations presently in the county - at Downieville, and at Sierraville. These facilities, being the responsibility of the State Division of Highways, are probably suitable both in location and present use. Insofar as any future relocation is concerned of these two stations, or reconstruction for that matter, this is unknown. However, when the capital improvement program is first instituted two years hence, these facilities should be included in this more intensive state functions may be located together in the proposed new location for the county yard previously mentioned.

L. Post Offices

There are eight post offices - one at each of the communities of Alleghany, Goodyear Bar, Downieville, Sierra City, Calpine, Sattley, Sierraville, and Loyalton. These federal facilities are, of course, outside the control of the county. However, their need, function, and retention are directly related to the use and support by the citizens in each community. Any future relocations and changes in functions are undreamed of at the moment.

M. Ranger Stations

There are two ranger stations in Sierra County serving Tahoe National Forest - at Downieville and Sierraville. The Downieville station normally employs 18 permanent and 12 temporary for Summer season. The Sierraville station normally has 9 full-time employed, and in the Summer add 18 temporarily. Both of these public facilities, in their primary function serving the general public in maintaining the forest lands, add materially to the economy of the county.

N. Soil Conservation Districts

There are three soil conservation districts, or portions of three districts which include part of Sierra County. One of these is the Indian-American Valleys Soil Conservation District covering the middle third or more of Plumas



County, and only the most northerly part of central Sierra County. The second one is the Sierra Valley Soil Conservation District; and the third is another joint county district which includes, in addition to Sierra County, the counties of Yuba, Nevada and Placer. The Soil Conservation Service has an office in the City of Loyalton.

O. Flood Control and Water Conservation District

There is a county-wide flood control and water conservation district which, at the moment, is not active according to the latest special district report by the state - having had no expenditures, or indebtedness in the last few years. During 1966-67 the district had a state subvention or grant in the amount of \$6,728.

P. Public Utilities

Electric power is served by the privately owned Pacific Gas and Electric Company in the western portion of Sierra County up to the Yuba Pass; and the Sierra Pacific Power Company serving the southeastern portion of the county from Loyalton to the Verdi area. The remainder of the county in Sierra Valley is served by the Plumas-Sierra Electric Cooperative. Future plans or expansions are not contemplated at this time.

Telephone service is provided by the Pacific Telephone and Telegraph Company. Telephone service since 1940 has increased greatly from the 110 services in the county to the bit over 800 phone services in 1966, to the estimated 1,050 telephone services provided today.

Natural gas is not available in the county at the present time. However, the Verdi area could be served by the utility company main through Verdi, Nevada.



Q. Water and Sewer

1. Water Systems

The excellent water quality in the county is well noted. Those persons, businesses and other recreational and agricultural establishments who are fortunate enough to tap onto springs and free-flowing wells for their water do indeed experience a natural pleasure few acquire in an age of ever-growing water pollution. The future protection of these water sources will be a problem in the future.

Most of the permanent population in the county is served by over a half-dozen publicly owned or privately owned water utilities. These are shown as best they could be (with the information on hand) by maps for each facility (where available) and on the larger map of the county which appears at the conclusion of this report. These facilities are described further in greater detail. First, it should be pointed out that most maps on systems and district boundaries were lacking, or not up to date - which placed a great burden on the consultant.

a. Alleghany

This area is served by the Alleghany County Water District which levies a tax rate of \$1.00 per \$100 of assessed valuation for the operation and maintenance of the water system. The original source of water supply are springs feeding into the north fork of Kanaka Creek and another creek. On the northeasterly side of the townsite on the abovementioned creek (Red Star Ravine) the water source is an eighty foot tunnel (Cumberland Tunnel) where a diversion pump lifts water up about 900 feet into two redwood tanks each holding 20,000 gallons. On the southeasterly side of the townsite another diversion pump at the Sixteen to One Mine lifts water about 600 feet into two redwood tanks each holding 30,000 gallons. Apparently the main water system is served by two inch mains. There is no available map of the water system.



At the present time the district feels that the system is adequate to serve the estimated fifty water connections or eighty persons. However, any large increase in population, or seasonal use will require some increased water lines and other improvements. The consultant's estimate of the population for the Alleghany area for 1970 was 170 persons. This is apparently too high, and will be confirmed when the detailed results of the special population census are examined in next year's planning program. Population projections indicate a very slow growth for the area in the next few years - 190 in 1980, 210 in 1990, and 250 in the year 2,000. It seems that the water system should be improved in the next ten years or twenty years to the extent of increasing the sizes of the water mains, particularly for fire protection purposes. A more detailed study of the system is in order and should be accomplished in the next few years. This should include mapping of the system as completely as possible; particularly when the townsite area is finally placed in private ownership. The growth picture then should be reexamined.

b. Goodyear Bar

There is a privately owned utility serving an estimated twelve connections or up to thirty persons. There is an inactive public utility district; and no maps available showing the system or the old district boundaries. However, the water system being privately owned comes under the jurisdiction of the state Public Utilities Commission, and the PUC approved the system in August, 1968. The water supply source are several springs located about seven miles south beyond Brush Creek Mine and Mountain House Road which feed Woodruff Creek. A diversion dam on the creek shunts the water into a wood flume, then into a ditch and then into a settling pond from which a main water pipe feeds the system. The water utility is owned by Mrs. Bertha Wright Bertillion of Oakland and Goodyear Bar. There is an annual charge of \$30 per single family house or \$54 for two families.

The present system seems to be adequate for the time being except to be extended to serve an estimated 16 additional households and 3 commercial



establishments. The consultant estimated a high population of 60 persons growing to 90 in 1980, 140 in 1990, and 300 in the year 2000. At the present time, the ownership pattern is such that the desire is for agricultural use; although it is possible that the area may attract second-home or summer home growth. Under the circumstances, it seems that any future water system development at this time is premature, until such time as the wishes for more development are voiced and detailed land planning is begun.

c. Downieville

This area is served by the Downieville Public Utility District which levies a tax of 50¢ per \$100 of assessed valuation. The district was formed in 1948, taking over a system originally constructed about 1880. The system is presently unsafe and undependable; and it has deteriorated to the extent that maintenance is difficult and costly. Water is supplied by the North Downie River about seven miles north of the town. Water is diverted from the river into an open ditch to an unlined storage reservoir. With prolonged snowfall flow in the ditch is obstructed or completely interrupted by snow and ice. Abnormally dry summers have resulted in the entire flow of the ditch, of about one cubic foot per second, being lost to seepage or evaporation. During periods of high runoff the water is turbid and dirty and of questionable potability.

The existing surface reservoir, excavated on a hillside, is open, unlined and inadequately fenced. Its capacity of about 50,000 gallons provides only a small amount of carryover storage and fire protection. Several homes are located at elevations higher than the reservoir and are served by small, open, wood tanks supplied from the ditch.

The distribution system haphazardly grew with the needs of the area, and is inadequate, to say the least. Much of the old metal pipe, some of it well casing, is rusted, subject to considerable leakage and unrepairable. Sediment has accumulated in low points which, when moved by high flows, can adversely affect the efficient operation of fire-fighting equipment. Contamination has



resulted with low line pressures and inflow to the leaky system. Operation and maintenance is further hampered by the almost complete lack of construction records for the system. The exact location of many of the lines in the system is unknown. There were no maps available for study or review.

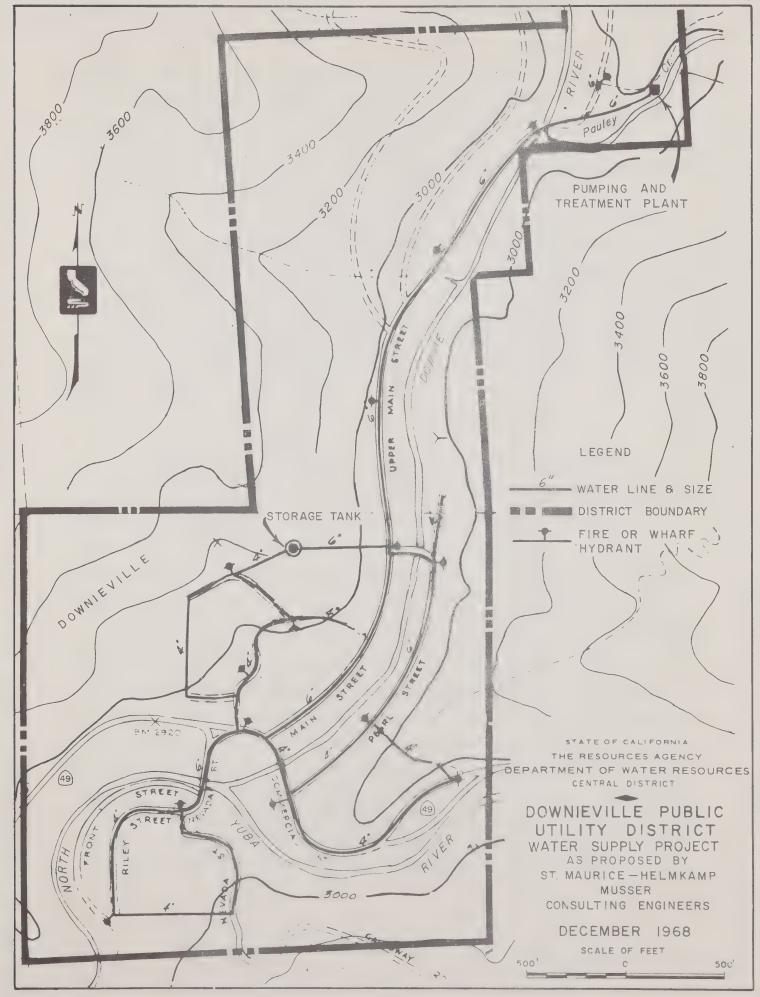
The district water rates are \$5 per month per single family; summer residents pay \$30 per year; and others are based on the extent of use based upon the single-family use and running from \$10 to \$25 per month. These rates and the tax levied are all that is charged. There is no hook-up fee.

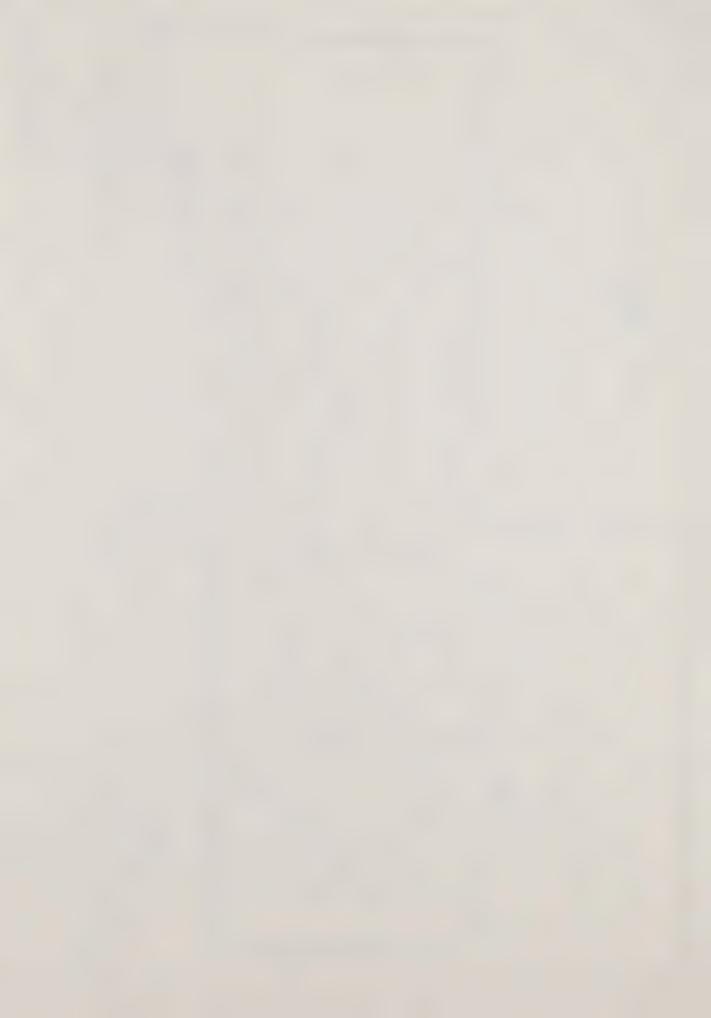
The district has a water right to divert 1.11 cubic feet per second from Pauley Creek on a year-round basis. A diversion pump at this spot is sometimes used in the summer to lift water into the system from the creek to supplement the river water in the canal. Service connections to the system number 138 serving as estimated 325 persons. This is only a few persons less than the consultant's population estimate of 340 persons for the area.

The district has for several years been attempting to find a way to improve the water system, and has worked diligently to secure whatever grants or loans could be obtained. In 1967 action was again started to obtain financial aid through a Davis Grumsky loan; and, finally, in 1968 application for a loan was made. The district's request for assistance from Farmers Home Administration, U. S. Department of Agriculture, could not be met by that agency because of insufficient funds. Finally, in 1969, the California Water Commission approved a loan for \$305,000 to build a new water system which would be financed ober a period of fifty years at the rate of two and one-half per cent on the unpaid balance. Approval for the acceptance of the loan by the 268 registered voters in the district was obtained at an election last November by a vote of 188 to 30.

A preliminary plan for the water system prepared by the districts's engineers is shown on the following page, as obtained from the State Department of Water Resources. Water will be pumped from Pauley Creek through a chlorinator-treatment plant to a storage reservoir (100,000 gallons or more) to be located about 260 feet above the community. Six







inch and four inch water mains would comprise the main system; and fire hydrants installed where needed. The system will be adequate to take care of over 200 connections and can easily serve the projected population of Downieville for 1980 to the year 2,000 of from 420 to 700 persons respectively. It had been previously estimated by a study committee that the water sources are adequate to serve an increase in population to 700 persons with a per capita use of 300 gallons per day or a total of 210,000 gpd. The committee went so far as to also indicate that expansion of the system could serve a population of 2100. Any expansion of the system to serve a greater population will necessitate adding public lands to the townsite. At the present time the district's engineers are completing the detailed plan for construction of the proposed new water system. Hopefully, the community of Downieville will, several months hence, have a safe, adequate water system to take care of its needs for the next thirty years.

d. Sierra City

This community is supplied by a variety of private systems with springs as the main source leading into Bigloe Creek. As described previously, the fire mains are separate and are for fire protection only. The Sierra City Public Utility District was formed about twenty years ago to study the water supply and system problem. It has been inactive ever since it first met, apparently, when a newly elected Board of Directors decided not to proceed with the district. It seems that various enterprising individuals have been solving, or trying to solve, their water needs over the years as freely as possible. Hence, there appear to be at least five private and loosely confederated systems. There are no maps available to trace these systems out. With such a loosely "organized" water effort it seems that a great deal of work must first be accomplished to determine if, how and what to proceed with in studying solutions to the problem. The planning committee indicated in its report several years ago that the expansion of housing in Sierra City is limited by the variety of private systems; and a proper combined water system could handle several times the present population of today estimated to be 240. This would mean that a good system publicly controlled can meet



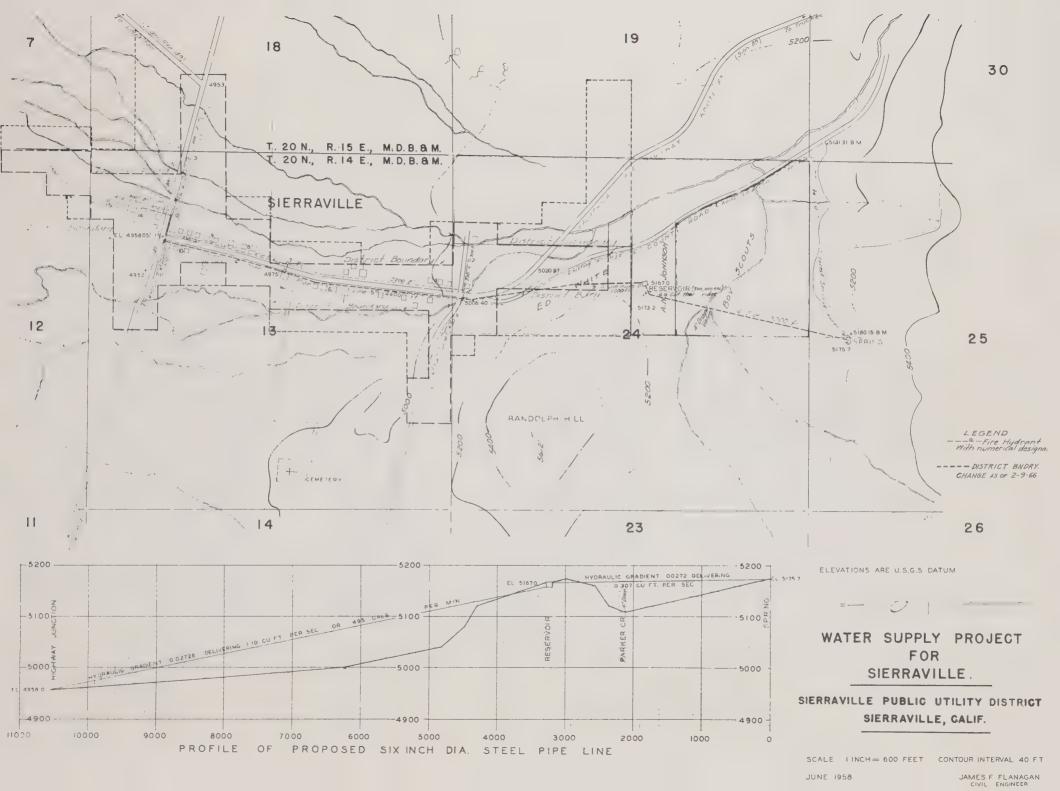
the projected populations of 280, 360 and 450 for 1980, 1990, and 2000. Before anything more can be done, a community consensus must be reached regarding the matter of community water supply and system. Some have estimated that a new system would cost at least \$190,000.

e. Sierraville

Sierraville is served by the Sierraville Public Utility District which has a tax rate of \$1.50 and charges variable fees for hook-ups of from \$25.00 for one-half inch size to \$75.00 for one and one-half inch. The water system was installed in 1959. The District also charges a flat rate per user of \$4.55 per month up to 11,500 square feet of area served. The monthly rate is increased accordingly for larger areas and other commercial and public establishments. An additional special assessemtn of \$1.00 was instituted as of July 1, 1968 to set up a reserve fund for system repairs, and a special bank account was set up for this purpose.

The water source is a spring which is sometimes augmented by another spring. The water flows from the first spring into a lined reservoir with a capacity of 300,000 gallons (useable capacity is 250,000 gallons). The natural spring water flow varies from 140 gallons per minute to 250 gpm; and the yield is estimated at an average of 220,000 gallons per day. There are approximately 75 connections serving an estimated population of 300 to 350 persons which may be high. The use of the water for irrigation, in addition to domestic use, leads to a high per capita of 715 gpd. Additional water can be supplied from a combination of surface water and wells as needed. Therefore, it is estimated that almost 1,500 people could be served with water supplied nearby; and with extension of the system which has a good pressure head today of 90 psi at the lower end of the system. See the map of the system which follows. Extension of the water mains and augmentation of storage (if needed) can easily serve the projected population of 420, 580, and 800 for 1980, 1990 and 2000.







f. Calpine

This pleasant resort community is served by a very good water system by the Sierra County Waterworks District No. 1, with a tax rate of \$11.45 per \$100 of assessed valuation of land only. The district charges no fees for water, but does charge from \$35 to \$75 for hookups to the system from 3/4 inch to 1 1/2 inch in size. The present system was installed in 1963 with a Davis-Grunsky loan from the state. The system presently serves a resident population of about fifty and a summer population of about 150. It is estimated that there may be as many as 100 connections today. It is anticipated that this number will grow each year in the future. Consumption of water is about 100 gallons per capita per day.

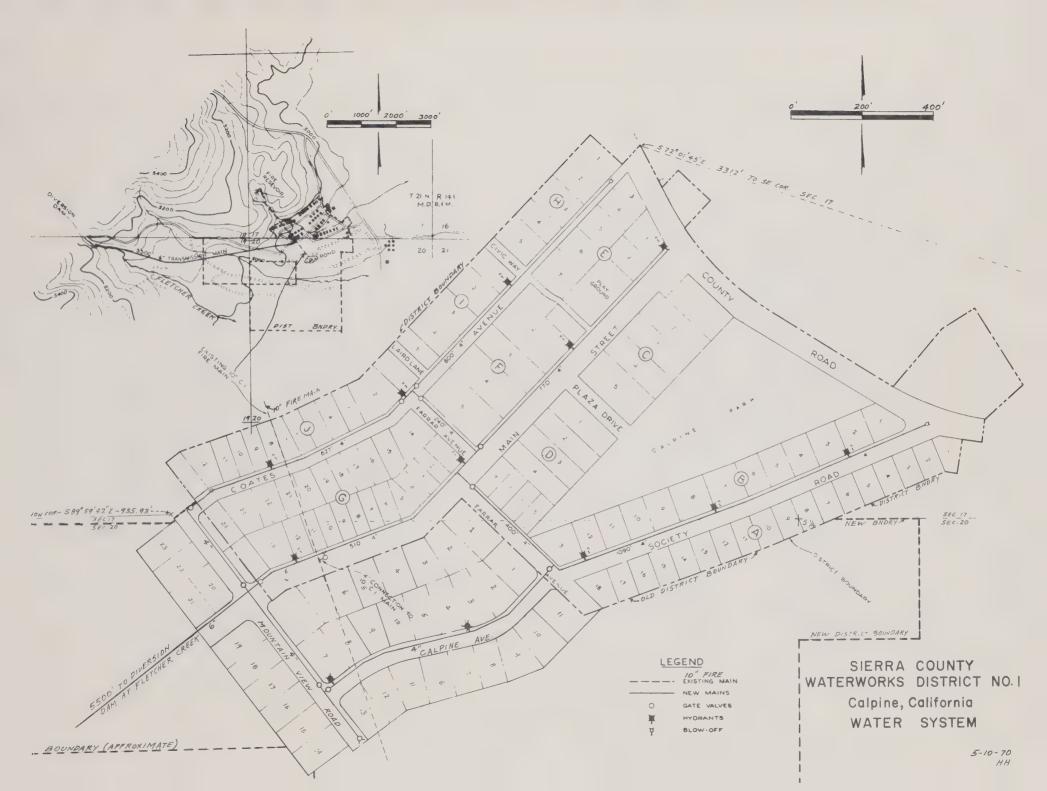
Water for the system is diverted by a dam on Fletcher Creek, with the district having a water right of 0.26 feet per second on a first priority diversion and a second priority diversion of an equal amount. The district is seeking to obtain additional water rights for the system due to ocassional reduced flows in dry years. Also, the district needs storage capacity presently lacking, and expects to provide such storage with two steel tanks of 60,000 gallons each near the diversion dam, and the possible construction of a storage reservoir below the diversion dam.

The present system is excellent and delivers water at from 80 to 90 psi to the users necessitating the use of control valves to reduce the pressure to a more workable 50 psi. With planned additions to the system it will easily meet the projected population growth of 280, 410, and 700 for 1980, 1990, and 2000. See the map of the system which follows.

g. Loyalton

The City of Loyalton, as the only incorporated city in Sierra County, provides the water supply and system to its residents. The city has a basic tax rate of \$1.00, and obtains other revenues from sales taxes and subventions as a general law city does in the state. The city does charge a water rate of \$5.25 per month for each private home and each dwelling unit;







and varying rates for other uses and connections. The water hook-up fee is \$50.000 per connection. The water is fluoridated.

Water is supplied by three wells yielding 1,130 gallons per minute; and is pumped directly into the water distribution system and into a 125,000 gallon steel tank and a 110,000 gallon redwood tank, which leaks. The best map available at the time was reproduced and follows this page. Water pressure ranges from 30 to 60 pounds per square inch.

Concerning the adequacy of the present system it would seem best to refer to the apparent concern of the city officials when they obtained two engineering studies regarding the system. The first study which was made in 1964 by the consulting firm of Porter, Obrien & Armstrong, engineers, indicated some major deficiencies too numerous to mention in this report. However, their estimate for repairing these deficiencies totaled \$283,000. The second report study was made in 1967 by Walters Engineering listed fewer deficiencies, particularly those relating to water supply improvements and cross connections with the mill system, and estimated the costs of improvements from \$4,000 to \$6,750.

The City of Loyalton then, later in 1967, applied for financial assistance with Farmers Home Administration and was informed there were insufficient funds for such assistance. The situation at the present time is about the same. With two recent engineering reports it would appear that the city has material whereby it can develop either, the least costly, or be in a position to develop alternatives based upon their ability to pay. If the need for a more assured water supply is, as it seems to be, the major problem for the moment then there are several alternatives the city could follow, based upon the last study made. Farmers Home Administration estimated the cost of improving the system to be \$170,000. With population growth projected at 1,040 for 1980 (over the 1008 today) and 1,100 and 1,200 for the years 1990 and 2000, it seems that the basic needs would be an assured, or more dependable water supply. There undoubtedly should be some improvements made to the system to repair leaks, and to replace some of the smaller mains







and fire hydrants. By and large, however, the system is reasonably adequate except for these items mentioned. However, if the city should experience a greater thrust of growth than now expected, then more study will have to be done on the system.

h. Verdi Area

Verdi is presently supplied by a private system. Although there has been a lot of speculation as to the growth of the area, more study is required on the future potential of growth. It certainly does not seem likely that a staggering population growth of 25,000 persons by 1975 (made by land developers) is likely.

i. <u>Jackson Meadow Reservoir, Webber Lake, Gold Lake, Stampede</u> Reservoir, Independence Lake, Table Rock and Other Recreational Areas

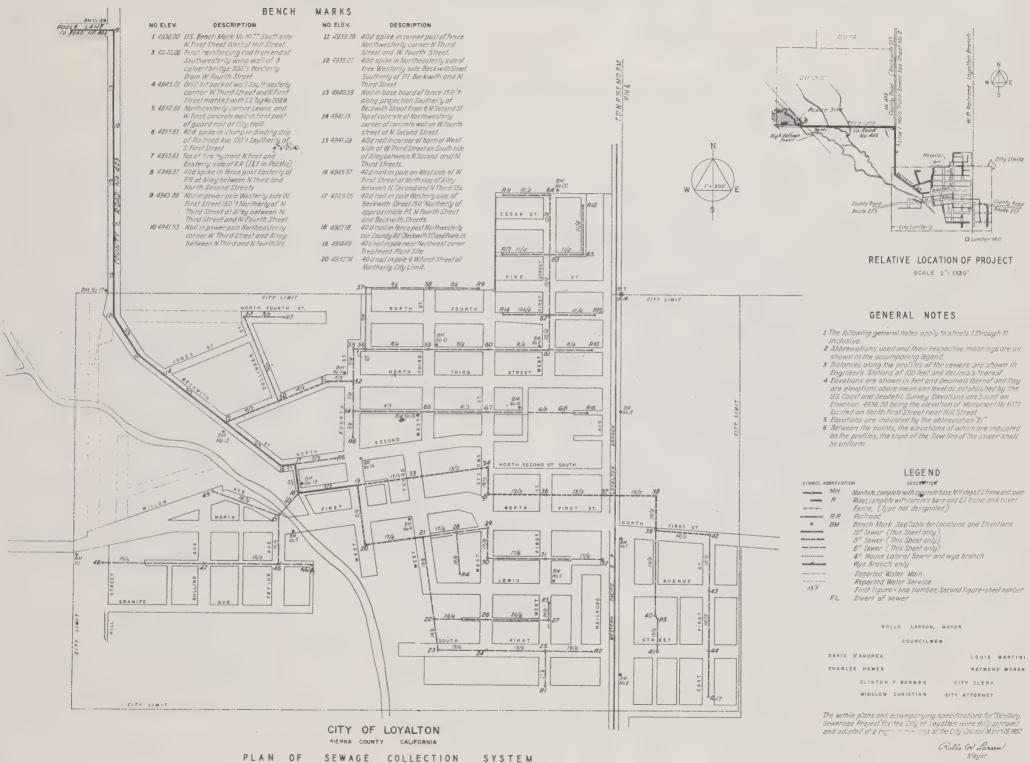
These areas are subject to recreational impact now and in the future. Provisions for excellent water supply systems have already been made for Jackson Meadow Reservoir. All these areas should be adequately managed by the agencies concerned in that water sources are available.

2. Sewer Systems

The City of Loyalton has the only enclosed sewer system in the county. The system was installed in 1958 through a general obligation bond issue of \$180,000. The city levies a 62¢ bond redemption rate. The monthly charge of \$3.50 per dwelling unit, and other uses pay commensurately higher monthly rates. The hook-up fee is \$50. A map of the system is shown on the following page. It is a relatively simple system with sludge digestion, sedimentation, and effluent ponds. It seems that this facility works well, and has the capacity to handle twice the present population of 1,008.

All of the other communities use the most economical method of taking care of sewage - septic tanks and leach fields. At this time it seems that this method will be used for quite some time because of its economy and the fact that population intensity permits their use. However, it would be desirable to for each community area to seriously study the need for enclosed sophisticated





SCALE I" = 200'

Clinton F. King ...



systems when more intensive growth pressures begin to take shape. From the population projections it appears that, in some cases, this should be accomplished by 1980 or 1990.

The consultant recommends that after next year's program wherein more detailed land use studies will be made of these communities in the county, and accurate maps are finally made, the contemplated citizen review committees be kept operating. Then along with the water districts and the County Department of Public Works, begin the studies which will be required on sewer systems for the communities. This is logically, the third or fourth year step in the planning program. It is outside the scope of this general plan study to proceed further, until the maps and other community plans have been prepared; and after the special districts and local communities have done sufficient work on their own.

3. Suggested Priorities in Meeting Current Water and Sewer Needs

The current water and sewer needs as explained in the preceding pages are currently being met. Inasmuch as almost all systems are reasonably adequate today in meeting current needs with some minor improvements, no priority system is required. It is recommended that all the utility districts take the necessary time to list all deficiencies which require immediate action. For example, the Downieville PUD took such an action years ago which resulted in conclusions reached to install a complete new system replacing the present one. All those who have the direct responsibility, such as the City of Loyalton and the districts, must decide for themselves what priorities to establish their needs.

It would seem that the best recommendation to be made is to have Sierra County play its proper role of coordinating plans and activities of these districts as they may relate to the overall county water resources and the watersheds. Such steps have already been taken by Sierra County in the continuation of the planning program with the second year program of community plans and zoning plans. The Planning Commission and the Board of Supervisors have already been advised that the third and subsequent years of planning will include public



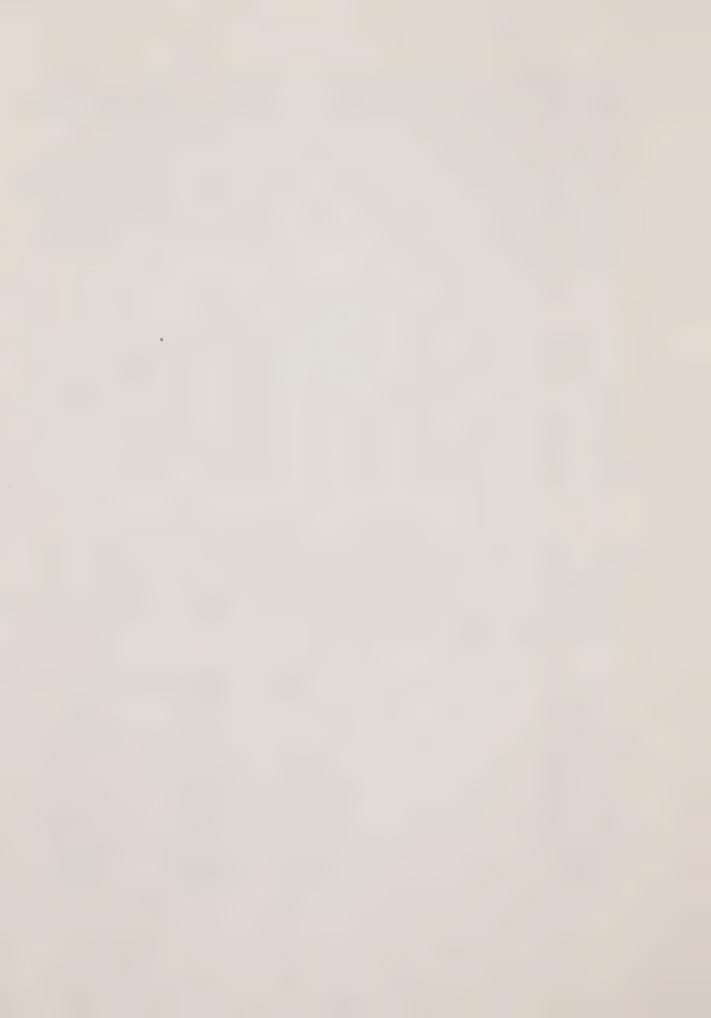
works programming, program planning and budgeting systems, other special studies, and the implementation of the general plan and subsequent plans. It will take time, and it should take time, if the coordination and cooperation between the districts and the county is to be managed successfully and all interests are involved. It will be in these subsequent years wherein the coordinative function of the county can be utilized by the separate entities which make up the local governmental units controlling water and sewer developments.

4. Financing Needed Water and Sewer Systems

No long-range plan for financing needed water and sewer systems is necessary at this time because the full extent of expansion or replacement of the systems is unknown. Even the grossest of estimates have yet to be made by the districts. Each of the communities have yet to decide direction of any growth which may occur which would require improvement or enlargement of present systems, or building a new system. Meaningful estimates may not be possible for some time.

Recent information secured from Farmers Home Administration through the Sierra County TAP (Technical Advisory Panel) of the U. S. Department of Agriculture included an inventory need for water and waste disposal facilities. Compiled by the Farmers Home Administration it includes estimates in the cost of improving these facilities, as follows.

	Estimated Improvement Cost		
<u>Community</u>	Water	Sewer	<u>Total</u>
Loyalton	\$170,000	\$110,000	\$280,000
Goodyear Bar	15,000	35,000	50,000
Downieville	70,000	165,000	235,000
Sierra City	190,000	165,000	335,000
Sierraville	40,000	100,000	140,000
Alleghany	32,000	72,000	104,000
Total	\$517,000	\$647,000	\$1,164,400



An examination of these costs suggests that there may be some difficulty by the districts and communities to finance all of the costs through the usual means of bond issues and the ad valorem tax. Based on the previous experiences of Downieville PUD and Calpine Waterworks, some financing observations are in order.

Experience has shown that financial assistance will have to be obtained from federal and state sources through grants or loans. The districts lack a broad enough tax base to independently pay the total cost of improvements. Without arguing the accuracy or reasonableness of the above-listed costs (which appear to be low, particularly in the cost of new sewer systems) once the decisions have been reached on a community level as to the absolute needs, then work should begin on estimating the costs accurately. This can only be done with a more detailed engineering study which is outside the scope of this program; and should follow logically next year or so.

The county can then be in a position to provide whatever assistance it can to the districts whose responsibility would be to make application for grants or loans from available sources. The Farmers Home Administration is one such agency. Perhaps, through the Sierra Economic Development District, the county (as a part of the district) may assist by supporting applications for grants and loans through SEDD from the Economic Development Administration. Of course, water system loans may be obtained from the State of California through the Davis-Grunsky Act. These low interest loans have been helpful to the previously mentioned Calpine Waterworks District and Downieville PUD.

5. Recommendations for Carrying Out the Water and Sewer Plan

Throughout the report recommendations have been made which clearly indicate the next steps in the planning process in carrying out the water and sewer plan. As has been stated throughout - once the next year's planning program is completed or on its way to completion, consideration should be given by the various districts and the county in following up the community and zoning plans with public works planning, capital improvement programs, and the



preparation (as required) of water and sewer systems. The County of Sierra should take a leading role by calling for meetings with the districts to ascertain how it can help, and by coordinating the work of the districts in implementing the water and sewer plan, including a system of priorities which would be supported by all agencies so that the greatest leverage can be obtained in obtaining financial aid.

With the aid of two planning assistance grants the county should be in a reasonably good position to successfully apply for additional aid in the form of a grant or loan to develop needed general layouts or more detailed layouts of water and sewer systems.

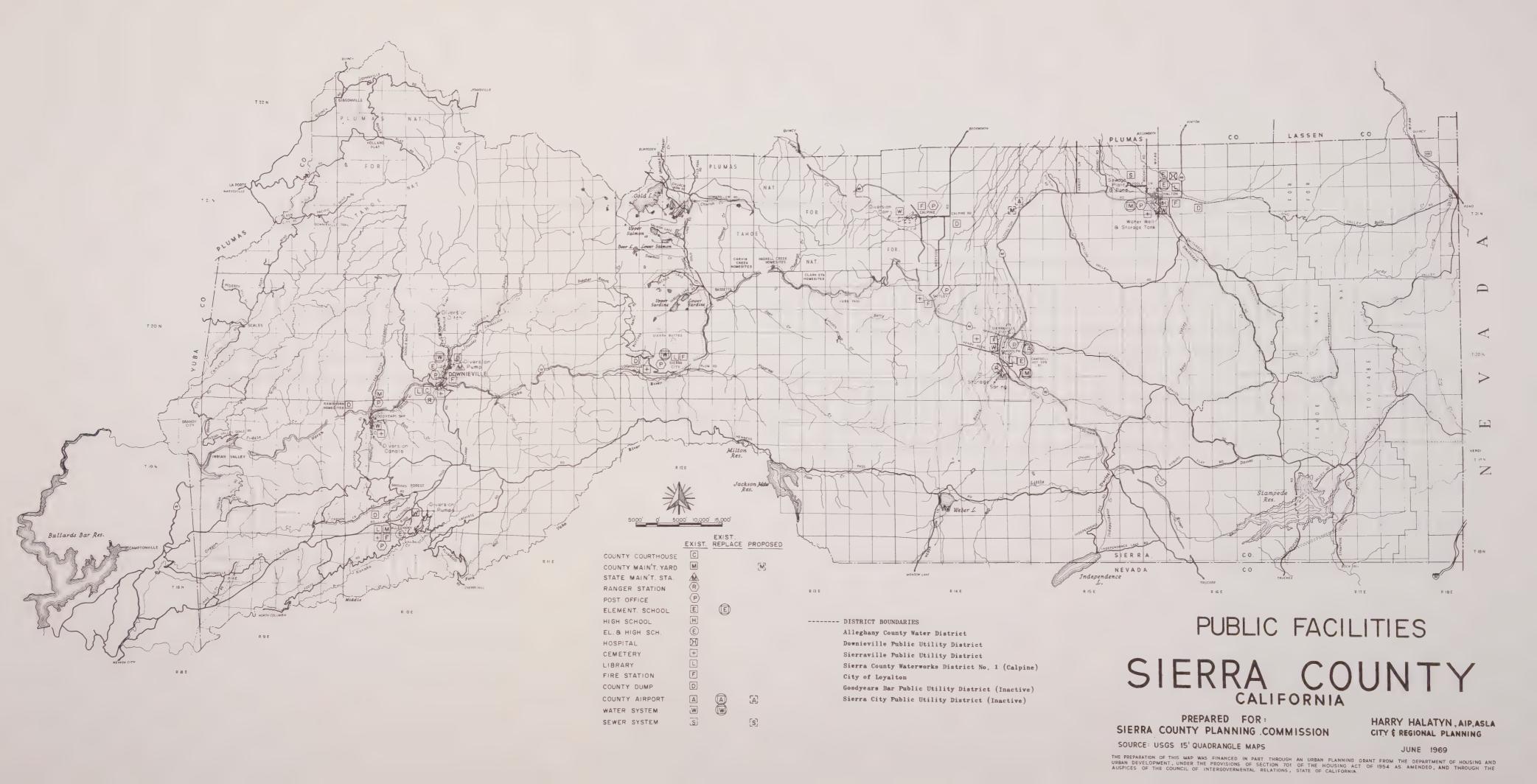
6. Updating the Water and Sewer Plan

As a part of the Sierra County General Plan the water and sewer element must be reviewed and revised as necessary in order to make it more detailed and workable as mentioned above, and to keep it current with changing trends, conditions, and projections. The report includes a section on effectuation and implementation which applies to all of the plan including its various elements. As a part of the planning process in general, annual review of the plan is desirable. However, if no major or significant events take place which effect the plan, then it should be reviewed and revised every five years. In this connection the county will have to adopt planning administrative policies which are presently lacking. However, these policies should be more easily attainable after the county has adopted land use and zoning controls.

R. Sanitation

Under this general category in public facilities we are limiting ourselves to the sanitary fill areas or simply, the county dumps. There are six county dumps as shown in their general locations on the PUBLIC FACILITIES map. These appear to have a remaining useful life of ten years before they are full. They are described more fully in the following paragraphs.







1. Alleghany-Forest Dump

It is located on the east 1/2 Section 32, T 19 N, R 10 E, MDB&M, on a special use permit with the Forest Service. It is used for alternate dumping and burning, and no metal objects or effluent permitted. It is a dual pit with an area of five acres. Load: 1,000 pounds per day approximately.

2. Ramshorn Dump

Location: NE 1/4 Section 1, T 19 N, R 9 E, MDB&M. Type: Dual pit for alternate dumping and burning. Nor large metal objects or effluent. Load: 5,000 lbs per day. Five acre site on Forest Service land.

3. Cups Dump

Location: SW 1/4 Section 29, T 20 N, R 12 E, MDB&M. Type: Dual pit for alternate dumping and burning. Separate disposal for large metal objects and sewage effluent (drying bed). Load: 3,000 lbs per day. Five acre site on Forest Service land.

4. First Divide Dump

Location: SW 1/4 Section 24, T 20 N, R 10 E, MDB&M. Type: Hillside area for metals and non-combustible materials; no burning. Load: 1,000 lbs per day. Five acre site on U.S.F.S. land. One mile from Downieville.

5. Sattley Dump

Location: NW 1/4 Section 23, T 21 N, R 14 E, MDBGM. Type: Surface dumping; metal, non-combustibles and burning permitted. Load: 5,000 lbs per day. About three miles from Calpine and Sattley.

6. Loyalton Dump

This dump is under the City of Loyalton's jurisdiction. Location: W 1/2 Section 17, T 21 N, R 16 E, MDB&M. Type: Surface dumping; metal, non-combustibles and burning permitted. Load: 300 to 1,000 lbs per day. One mile from Loyalton.



The public facilities in the county, including utilities, were more thoroughly investigated than is the normal case in the preparation of a general plan for a county. This was primarily due to the fact that the portion on water and sewer had to be prepared for Farmers Home Administration in order to try to meet their criteria, which are subject to different interpretations. Easily obtainable data was not available, and much time was spent in long distance telephone calls, driving long distances, and interviewing various district and county officials to try to secure relevant data. The shortage of up-to-date information on special taxing districts also created a problem. The consultant recommends that these data and information on special taxing districts, including dates formed, membership, etc. and, particularly, maps be compiled and brought up to date; if for no reason but to aid the county's Local Agency Formation Commission in its district boundary deliberations.



VII. EFFECTUATION

The question arises as to how the plan is to be put into effect and made to work. The General Plan was adopted by Sierra County in 1969 by the:

Planning Commission on September 15, 1969 (Resolution No. 69-5)

Board of Supervisors on September 29, 1969 (Resolution No. 69-44)

The Recreation Plan was adopted by Sierra County also in 1969 by the: Planning Commission on November 4, 1969 (Resolution No. 69-6) Board of Supervisors on November 17, 1969 (Resolution No. 69-52)

The action taken by the county in adopting the plans began the effectuation process. Other implemention actions and techniques are described below. An important factor in the effectuation of the plan will be the independent actions of the people living, working, investing, and recreating in Sierra County. The actions of these individuals will be governed and can be made more secure by a consistent policy on the part of Sierra County's administration. The plan exercises an important stabilizing force. In order to insure consistency and to clearly define the long-range public interest the Planning Commission and the Board of Supervisors guides the actions of the public through the preparation and adoption of more detailed planning and project studies, and through the adoption of specific controlling ordinances and capital improvement programs.

A. Community Plans

The general plan is a statement of objectives, goals and standards. Because it is general, and because certain areas of the county will require closer study, it is necessary to prepare more precise plans for each community. The entire county, it must be remembered, was studied as the planning area. Action already has been taken with a program for studying the community areas and preparing plans for them to be completed next year.



B. Project Plans and Studies

Along with the community planning area studies and plans there may be instituted studies of a specific project required to carry out the general plan and to resolve pressing problems. Some examples of these might be detailed route studies of major roads and highways, park and recreation plans, parking studies, water and sewer studies, and other projects in the interest of public health, safety and welfare.

C. Capital Improvement Program

The report contains some indicators of public improvements which will ultimately be required. The capital improvement program coordinates and integrates the plans of the county's operating departments. The county should determine and evaluate the improvements that will be needed within every five to seven year period and establish a capital improvement program, including the timing and financing of all projects. Annual examination of the county's needs should project requirements and estimated costs ahead for each of the five to seven years. This technique is necessary for sound management, effectuating the plan, and coordinating all county activities resulting in savings to the taxpayer.

D. <u>Subdivision Ordinance</u>

A new subdivision ordinance, properly administered, will ensure that land development is well planned and coordinated with existing and proposed development. Standards of size, shape and area of subdivision lots for different types of subdivisions must be prepared. Filing procedures, review and administration of the ordinance must be clearly explained. The standards for improvements to be included in the subdivision must be drawn; and the responsibilities for the improvements between the subdivider and the county clearly defined.

E. Zoning Ordinance

The zoning ordinance is a set of specific regulations which govern the precise uses of land and describe the conditions for their use. While the plan looks

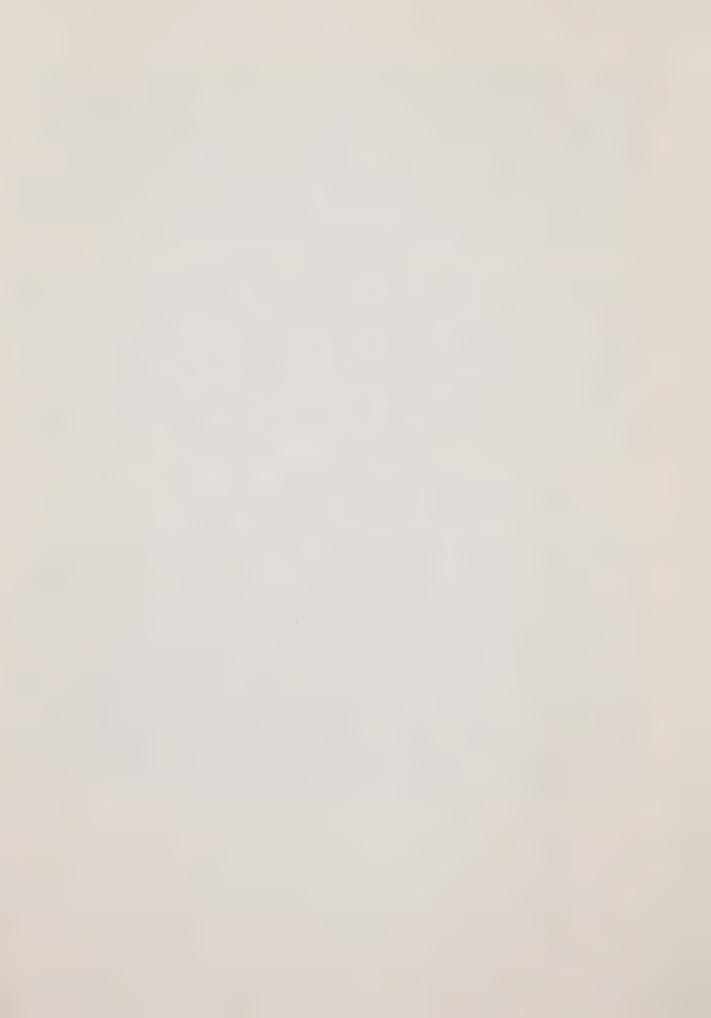


forward to ultimate land use development, the zoning ordinance deals with current use of land and that which may be utilized for the next three to five years. As land developments and economic growth approaches, zoning actions and plans are required. Controls are provided to ensure high standards of land development without restricting private initiative. Each zoning district should be as exclusive as possible permitting specific types of compatible uses and not be a "catch-all" for some or all uses.

A need exists for complete study of zoning needs as they relate to the land policies described in the general plan. Specific use zones must be designated, and administrative procedures detailed for operation and enforcement. The protection of the appearance of the county must be included to preserve the county's future recreation attractiveness and resulting economy. Off street parking should be required. Building setback lines and precise plan lines must be included. Special recreation and natural resource zones will have to be established.

F. Housing and Urban Renewal

Federal funds are available to assist local governments to undertake an urban renewal program in the improvement and redevelopment of areas which are seriously blighted; and for financial aid in housing. Over the years many communities have benefitted from this program and have improved living conditions and the tax base. Whatever level of renewal is required, whether it be conservation, rehabilitation, or redevelopment, the Department of Housing and Urban Development can provide some guidance and assistance. The State Department of Housing and Community Development can also offer some advice and assistance. Because of the complexities and regulations involved in the procedures, it requires the full attention of a governmental unit to successfully manage a program of housing and renewal.



G. Maintaining and Updating the General Plan

It is essential that the general plan be kept up and maintained as a working document; and that it be kept current and up to date. An orderly procedure should be established to periodically examine, revise and readopt the general plan at least every five years, or more frequently as required due to changing conditions. When the capital improvements are being studied and considered by the county, state or federal agencies it should be required that the general plan and other more precise plans be studied so that all the proposed improvements and plans are properly coordinated and used to best advantage.



